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SEARCH REQUEST FORM

11-771

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Q16528; PREMBLREL 01, C:
01-NOV-1996 (TREMBLREL 01, L:
01-NOV-1996 (TREMBLREL 06, L:
VEGF RELATED FACTOR ISOFORM V.
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064290;
064290;
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EMBL; U43368; G1216396; -.
EMBL; U52819; G1488259; -.
PROSITE: PS00249; PDGF; 1.
PFAM: PF00341; PDGF.
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OLOFSSON B., PAJUSOLA K., VON EULER G.,
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EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
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MEDLINE; 96325041.
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M VRF186 PRECURSOR.
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Pred. No. 0.00e+00;
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VEGF RELATED FACTOR ISOFORM VRF186.

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                                                                     PRT;
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CORE PROTEIN.
LAMININ ALPHA 3B CHAIN
PAC CLONE 248015 FROM
POLYPEPTIDE.
POLYPROTEIN.
ALR.
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O1-JAN-1998 (TREMBLREL. 05, C
01-JAN-1998 (TREMBLREL. 05, L
01-JUN-1998 (TREMBLREL. 06, L
VASCULAR ENDOTHELIAL GROWTH F
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BIOCHEM, BIOPHYS. RES. COMMUN. 2:
EMBL; U52820; G1488261; -.
EMBL; U43836; G1314334; -.
MCD; MGI:106199; VRF.
PROSITE; PS00249; PDGF; 1.
PFAM; PF00341; PDGF.
SEQUENCE 207 AA; 21914 MW; 41
                                                                                                                MANDRIOTA S.J., PEPPER M.S.;
MANDRIOTA S.J., PEPPER M.S.;
SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF032955; GJ641622; -
PROSITE; PS00249; PDGF; 1.
PFAM; PF00741 - POCT
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PROC. NATL. ?
                                                                   SEQUENCE
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                                                                                                              PFAM;
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE) VASCULAR ENDOTHELIAL GROWTH FACTOR RELATED PROTEIN (VASCULAR ENDOTHELIAL GROWTH FACTOR B 186). WRF OR VEGF-B. WRF OR VEGF-B. WRF OR VEGF-B. WRSCULLUS (MOUSE). EUKARYOTA, WETAKOOUSE).
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                                                                                                                                                                                                                                  EUTHERIA; RODENTIA.
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MEDLINE; 96183052.
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ERIKSSON U.;
J. BIOL. CHEM. 271:19310-
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MEDLINE; 9632
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                                                                                                             PF00341; PDGF.
    h 11.8%;
Similarity 100.0%;
26; Conservative
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39; Conservative
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116 AA;
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FACTOR B 186 PRECURSOR
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                                                                1C6E2733 CRC32;
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       Mismatches
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ID 042571;
AC 042571;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-JAN-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DT VASCULAR ENDOTHELIAL GROWTH FACTOR 122.

GN VEGF.
VEG
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O54881; PRELIMINARY: PRT; 150 AA.
O54881; PRELIMINARY: PRT; 150 AA.
O1-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
O1-JUN-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
VASCULAR ENDOTHELIAL GROWTH FACTOR B (FRAGMENT).
RATTUS NORVEGICUS (RAT).
RATTUS NORVEGICUS (RAT).
RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                                                                                   O42572 PRELIMINARY; PRT; 194 AA.
O42572; PREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-JAN-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
VASCULAR ENDOTHELIAL GROWTH FACTOR 196.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLEAVER O., TONISSEN K.F., SAHA M.S., KRIEG P.A.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF008593; G2271033; -.
PROSITE; PS00249; PDGF; 1.
PFAM; PF00341; PDGF.
SEQUENCE 148 AA; 17234 MW; 83E936CE CRC32;
SEQUENCE FROM N.A.
CLEAVER O., TONISSEN K.F., SAHA M.S., KRIEG P.A.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      XENOPUS LAEVIS (AFRICAN CLAWED FROG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
[1]
                                                                                                                                                                                                                            XENOPUS LAEVIS (AFRICAN CLAWED FROG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             118 HSQCECRPKK 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           125 HSQCECRPKK 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10.4%;
Local Similarity 100.0%;
les 23; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.5%; ratcn
Local Similarity 100.0%;
les 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 23; DB 11;
Pred. No. 6.67e-43;
0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 10; DB 13;
Pred. No. 3.03e-07;
0; Mismatches 0
                                                                                                                                                                                                                                  TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AMPHIBIA;
                                                                                                                                                                                                                                  AMPHIBIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
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RESULT 7
ID 060263
AC 060263;
AC 060263;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE SODIUM CHANNEL.
OS HOMO SAPIENS (HUMAN).
CE EUTHERIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RC 715SUE-TESTIS;
RA ISHLBASHI K., MARUMO F.;
RA ISHLBASHI K., MARUMO F.;
RB BIOCHEM. BIOCHEM. BIOPHYS. RES. COMMUN. 245:589-593(1998).
BR EMBL; AB010575; D1026837; -.
KW IONIC CHANNEL.
SQ SEQUENCE 532 AA; 59154 MW; 115D0C62 CRC32;
                                                                                                                                                                                                                                     FRESULT CONTROL OF CON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
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Best Local S
Matches 1
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Best Local Similarity 100.0%;
Matches 8; Conservative
                                                                                                                    Matches
                                                                                                                                            Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ULT 8
060720; PRELIMINARY;
060720; (TREMBLREL 07, C
01-AUG-1998 (TREMBLREL 07, L
01-AUG-1998 (TREMBLEEL 07, L
01-AUG-1998 (TREMBLEEL 07, L
VASCULAR ENDOTHELIAL GROWTH F
                                                                                                                                                                                                                                                             TISSUE-RETINA;
JINGJING L., ROOUE R.S.;
SUBMITTED (MAY-1998) TO EMBL/GENBANK/DDBJ DATA
EMBL; AF062645; G3139081;
NON_TER
1 1
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PROSITS; PS00249; PDGF; 1.
PFAM; PF00341; PDGF.
SEQUENCE 194 AA; 22672 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; (
                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      130 GRPPAPPG 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                125 HSQCECRPKK 134
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   121 CECRPKK 127
                                                          15 CECRPKK 21
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Similarity 100.0%;
10; Conservative
                                                                                                                    Similarity 100.0%; 7; Conservative
                                                                                                                                                                                                                                        96 AA; 11314 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07, CREATED)
07, LAST SEQUENCE UPDATE)
07, LAST ANNOTATION UPDATE)
0WTH FACTOR 183 (FRAGMENT).
                                                                                                              Score 7; DB 4; I
Pred. No. 9.02e-01
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 10; DB 13; L
Pred. No. 3.03e-07;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 8; DB 4; Length 532; Pred. No. 8.91e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                     D21D2474 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74B8253A CRC32
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TETRAPODA;
                                                                                                                                                                        Length 96;
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                                                                                                                                                                                                                                                                                                                              BANKS
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                                                                                                                    Gaps
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RESULT ID Q: AC Q:

014962; Q14962;

PRT;

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RESULT 11
ID 052677
AC 052677;
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AC . QC

AC .
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Best Local S
Matches
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Best Local
                                                                                                                                                                                                                                                                                           WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J., BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M., DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P., HARKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J., KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C., MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C., RIEKEN L., ROOPEA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A., SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K., VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L., WATERINSON-SPROAT J., WOHLDMAN P.; NATURE 368:32-38(1994).

EMBL; 237140; E257675; -.

EMBL; 237140; E257675; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       023663;
023663;
01-NOV-1996
01-NOV-1996
01-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

MEDLINE; 95213014.

LARSSON C., LANDELLI M., WHITE I., LENDAHL U.;

LARSSON C., LANDELLI M., WHITE I., LENDAHL U.;

GENOMICS 24:253-258(1994).

-!- FUNCTION: NOTCH 1. 2 AND 3 PLAY A COMBINATIONAL ROLE DURING VARIOUS CELL FATE DECISIONS AND MORPHOLOGICAL MOVEMENTS IN THE DEVELOPING CNS AND PROBABLY OTHER REGIONS OF THE EMBRYO.

-!- SIMILARITY: TO OTHER NOTCH-TYPE PROTEINS.

EMBL; X79439; G763116; ...

DIFFERENTIATION; NEUROGENESIS; REPEAT; EGF-LIKE DOMAIN; TRANSMEMBRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAENORHABDITIS ELEGANS EUKARYOTA; METAZOA; ACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-1997 (TREMBLREL.
01-JUL-1997 (TREMBLREL.
01-JUL-1997 (TREMBLREL.
NEUROGENIC LOCUS NOTCH 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                         53
                                                                                                                                                                 80 VPLTVEL
                                                                                                                                                                                                              Match 3.2%;
Local Similarity 100.0%;
les 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      143 RPQPRSV 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72 RPQPRSV 78
                                                                                                               VPLTVEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SEP-1994) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TREMBLREL.)
(TREMBLREL.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              106
106 AA;
                      PRELIMINARY;
                                                                                                                                                              86
                                                                                                                    59
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3.2%;
llarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      106
; 11071 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACOELOMATES; NEMATODA; SECERNENTEA;
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01,
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04,
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                                                                                                                                                                                                         Score 7;
Pred. No.
0; Mism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 7;
Pred. No.
0; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
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                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                  7; DB 5; Lo
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                   193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4; L
9.02e-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₽
                                                                                                                                                                                                                                                     Length 189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       UPDATE)
                                                                                                                                                                                                           0
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                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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Best Local Similarity 100.0%;
Matches 7; Conservative
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Q52737 PRELIMINARY; PRT; 207 AA.

Q52737; PRELIMINARY; PRT; 207 AA.

01-NOV-1996 (TREMBLREL. 01, CREATED)

01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDA

01-NOV-1996 (TREMBLREL. 01, LAST ANNOTATION UP

NITRILE HYDRATASE ALPHA SUBUNIT.

RHODCCCCUS ERYTHROPOLIS.

PROKARYOTA; FIRMICUTES; ACTINOMYCETALES; NOCAR
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039628;
01-JAN-1998
01-JAN-1998
01-JAN-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-EC45;
WANG Y.-D., ZHAO S., HILL C
SUBMITIED (JAN-1998) TO EME
EMBL; AF044505; G2921769;
NON_TER 1 1
SEQUENCE 193 AA; 21272 M
                                                                                                                     SEQUENCE FROM N.A.
JEHLE J.A., VAN DER LINDEN I.F.A.,
VIRUS RES. 0:0-0(1997).
EMBL; AF002732; G2233189; -.
SEQUENCE. 207 AA; 23915 MW; D2F(
                                                                                                                                                                                                                                                                                     VIRUSES;
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ROBERT D., NISHIYAMA M., HOR: BIOSCI. BIOTECHNOL. BIOCHEM. EMBL; D14454; G559379; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-JCM6823
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Local Similarity 100.0%;
Local Similarity 100.0%;
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ES; DSDNA VIRUSES, NO RNA
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Similarity 100.08;
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(TREMBLREL.)
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TO EMBL/GENBANK/DDBJ DATA BANKS
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HEM. 57:1323-1328(1993).
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3. 9.02e-01;

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Search completed: Mon Nov 30 13:11:02 1998 Job time : 58 secs.
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X MEDLINE; 92168017.

X MEDLINE; 92168017.

A HOUCK K.A., FERRARA N., WINER J., CACHIANES G., LI B., LEUNG D.W.;

L MOL. ENDOCRINOL. 5:1806-1814(1991).

EMBL; S85192; G246156; -.

IR EMBL; S85224; E91787; -.

IR EMBL; S85219; E91787; JOINED.

IR EMBL; S85221; E91787; JOINED.

IR EMBL; S85222; E91787; JOINED.

IR EMBL; S8522; E91787; JOIN
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Best Local Similarity 100.0%;
Matches 7; Conservative
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Matches 7; Conservative
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EVANS P.S., BENKO M., HARRACH B., LETCHWORTH G.J.;

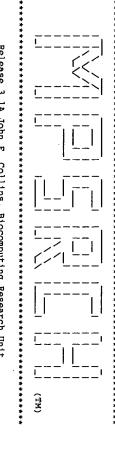
VIROLOGY 244:173-185(1998).

EMBL; AF038868; G3135468; -.

SEQUENCE 221 AA; 24149 MW; 22C990DC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LT 15
Q16889
Q16889;
Q1.6889;
Q1.6889;
Q1.01.0V-1996 (TREMBLREL. 01, CREATED)
Q1.NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
Q1.VUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
VASCULAR ENDOTHELIAL GROWTH FACTOR.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O71198 PRELIMINARY; PRT; 221 AA.
071198;
071198;
01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
10-AUG-1998 (TREMBLREL. 07, LAST AUNOTATION UPDATE)
HEXON-ASSOCIATED STRUCTURAL PROTEIN PVIII PRECURSOR.
BOVINE ADENOVIRUS TYPE 1.
VIRUSES; DSDNA VIRUSES, NO RNA STAGE; ADENOVIRIDAE; MASTADENOVIRUS.
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Pred. No. 9.02e-01; 
0; Mismatches 0; Indels
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Run on: MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Mon Nov 30 13:09:25 1998; MasPar time 7.16 Seconds 827.945 Million cell updates/sec

Tabular output not generated.

Title: >US-09-033-662-2 (1-221) from US09033662.pep

Description: Perfect Score:

Sequence: 1 MRRCRISGRPPAPPGVPAQA......CQGRGLELNPDTCRCRKLRR 221

Scoring table: TABLE unitprotable Gap 60

74019 segs, 26840295 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: swiss-prot35 1:swissprot

Statistics: Mean 3.428; . Variance 0.401; scale 8.545

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	Score	Query Match	Length	BB	ID	Description	z
21	119	53.8	188		VEGB_HUMAN	VASCULAR ENDOTHELIAL G	0.00e+00 4.34e-99
ا. س	,	, ; , ; , v	146		VEGF_SHEEP	ENDOTHELIAL	3.30e-01
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Q	7	3.2	190	ب	VEGF_BOVIN	ENDOTHELIAL	
7	7		190	۔	VEGF_RAT	VASCULAR ENDOTHELIAL G	
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10	7	ω .	214	- -	VEGFLMOUSE	VASCULAR ENDOTHELIAL G	3.30e-01
11	7		215	Н	VEGF_HUMAN		
12	7	3.2	224	ــر	EFA4_MOUSE	$\overline{}$	3.30e-01
13	, 7		329	ب.	Y146_HAEIN		
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16	7		562	μı	SIS2_YEAST	SIS2 PROTEIN (HALOTOLE	.30e-
17	7	3.2	640	ᆫ	DEXT_ARTSP	DEXTRANASE PRECURSOR (
18	7		1013	Ь	PTPX_MACNE	PROTEIN-TYROSINE PHOSP	3.30e-01
19	7		1015	<u>سر</u>	PTPX_HUMAN	PROTEIN-TYROSINE PHOSP	
20	7	3.2	2481	<u>,,</u>	UN52_CAEEL	BASEMENT MEMBRANE PROT	3.30e-01
21	σ	2.7	66	L	RGS7_RAT	REGULATOR OF G-PROTEIN	2.50e+01
22	o	2.7	71	ب	YAZ1_PSEAE	HYPOTHETICAL PROTEIN I	2.50e+01
23	o	2.7	117	_	RS25_CAEEL	PROBABLE 40S RIBOSOMAL	2.50e+01
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1115 1150 1188 1188 3164

VEGB_HUMAN P49765; 01-OCT-1996

STANDARD;

ALIGNMENTS

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01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-OCT-1997 (REL. 35, LAST ANNOTATION UPDATE)
VASCULAR ENDOTHELIAL GROWTH FACTOR B PRECURSOR (
ENDOTHELIAL GROWTH FACTOR RELATED PROTEIN) (VRF)
                                                                                                                                                                                                                                                                                                                                                                                                         -!- SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO THE EXTRACELLULAR MATRIX UNLESS RELEASED BY HEPARIN !-! TISSUE SPECIFICITY: EXPRESSED IN ALL TISSUES EXCEPT LI HIGHEST LEVELS FOUND IN HEART, SKELETAL MUSCLE AND PARISIS INVILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH EMBL; U443369; G1216398; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GRIMMOND S., LAGERCRANTZ J., DRINKWATER C., SILINS POLLOCK P., GOTLEY D., CARSON E., RAKAR S., NORDENS WARD L., HAYWARD N., WEBER G.; GENOME RES. 6:122-129(1996).
-!- FUNCTION: GROWTH FACTOR FOR ENDOTHELIAL CELLS.
-!- SUBUNIT: HOMODIMER, DISULFIDE-LINKED. CAN ALSO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
VASCULAR ENDOTHELIAL GROWTH FACTOR B PRECURSOR (VEGF-B) (VEGF RELATED
                                                                                                                                                                      PAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQR
                                                                                                                                                                                                                        PAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQR
       CHORDATA; VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                            K., KAIPAINEN A., VON EULER G
PETTERSSON R.F., ALITALO K.,
U.S.A. 93:2576-2581(1996).
                                                                                                                                                                                                                                                                         Score 119; DB 1, 100, 0.00e+00;
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2ACA_HUMAN
DPOL_ADE40
TEGU_HSV11
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                                                                                                                                                                                                                                                                                                                                 35EA8904 CRC32;
                                                                                                                        188
                                                                                                                                                                                                                                                                                                                                           ENDOTHELIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        188
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PROTEIN PHOSPHATASE PP
DNA POLYMERASE (EC 2.7
LARGE TEGUMENT PROTEIN
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                                                          (VEGF
                                                                                                                                                                                                                                                                                                    Length 188
                                                                                                                                                                                                                                                                               Indels
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FORM HETERODIMER
                                                       ·B)
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       MAMMALIA;
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2.50e+01
2.50e+01
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C --- TISSUE SPECIFICITY: ABUNDANTLY EXPRESSED IN
C --- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY
R EMBL; U48800; G1234825; --
R EMBL; U48837; G1314336; --
R MGD; MG:106199; VRE
PROSITE; PS00249; PDGF; 1.
MITOGEN; GROWTH FACTOR; SIGNAL; HEPARIN-BINDING.
SIGNAL ---
CHAIN
CHAIN
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Best Local S
Matches 3
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01-NOV-1997 (REL. 35,
VASCULAR ENDOTHELIAL G
PERMEABILITY FACTORY
VEGF.
               PROSITE;
MITOGEN;
SIGNAL
                                                                                                                                  J. REPROD. FERTIL. 108:157-165(1996).
J. REPROD. FERTIL. 108:157-165(1996).
-!- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIGENESIS.
                                                                                                                                                                                                                                                                                                                        VEGF_SHEEP
P50412;
01-OCT-1996
01-OCT-1996
01-NOV-1997
VASCULAR ENDO
                                                                              PERMEABILITY.

-!- SUBUNIT: HOMODIMER, DISULFIDE-LINKED.

-!- SUBCELLULAR LOCATION: SECRETED BUT RI

-!- SUBCELLULAR MATRIX UNLESS RI
                                                  -I- SIMILARITY: BELONGS EMBL; X89506; G899351;
                                                                                                                                                                               REDMER D.A., DAI Y., LI J., CHARNOCK-JONES REYNOLDS L.P., MOOR R.M.;
                                                                                                                                                                                                                                                         OVIS ARIES (SHEEP).
EUKARYOTA; METAZOA; CHO
EUTHERIA; ARTIODACTYLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
SEQUENCE
                                                                                                                                                                                                       MEDLINE; 97117958
                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NORDENSKJOLD M., WEBER G., HAYWARD N.K.;
BIOCHEM. BIOPHYS. RES. COMMUN. 220:922-928(1996).
-!- FUNCTION: GROWTH FACTOR FOR ENDOTHELIAL CELLS.
-!- SUBUNIT: HOMODIMER, DISULFIDE-LINKED. CAN ALSO
WITH VEGF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OLOFSSON B., PAJUSOLA K., KAIPAINEN A., VON EULER G
SAKSELA O., ORPANA A., PETTERSSON R.F., ALITALO K.,
PROC. NATL. ACAD. SCI. U.S.A. 93:2576-2581(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OLOFSSON B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOWNSON S.,
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[1]
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                                                                             SIMILARITY).
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Similarity 100.0%;
39; Conservative
                                      9506; G899351;
PS00249; PDGF;
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188 AA;
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27
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# FACTOR;
1 26
7 146
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34, LAST SEQUENCE UPDATE)
35, LAST ANNOTATION UPDATE)
IAL GROWTH FACTOR PRECURSOR
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21442 MW;
                                                                                                                                                                                                                                                                       CHORDATA;
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; GLYCOPROTEIN; ;
BY SIMILA
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SIGNAL; HEPARIN-BINDING
                                                              THE
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VASCULAR EN
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VASCULAR ENDOTHELIAL
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             SIMILARITY
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No. 4.34e-99;
                         SIGNAL.
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                                                                                      RELEASED
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RELEASED BY HEPARIN
RESSED IN HEART, BRA
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D BY HEPARIN (H
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GROWTH FACTOR
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                                                             GROWTH
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FORM HETERODIMER
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RESULT TO SOLUTION OF THE SOLU

SEQUENCE FROM N.A.

WITH VEGF

OLOFSSON B., PAJUSOLA K., SAKSELA O., ORPANA A., PEJ PROC. NATL. ACAD. SCI. U.S

SEQUENCE FROM N.A. MEDLINE; 96197355.

HOMO SAPIENS (HUMAN). EUKARYOTA; METAZOA; CHORDATA;

VEGFB ÓR VRF.

EUTHERIA; PRIMATES.

RESULT
ID VI
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DT 0:
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CON V.
CON V.
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CON M.

ENDOTHELIAL GIVEGFB OR VRF.

MUSCULUS (MOUSE). ARYOTA; METAZOA; (

VEGB_MOUSE P49766; 01-OCT-1996 01-OCT-1996 01-NOV-1997

STANDARD;

PRT;

δÃ Дb δδ B

77

17 78

18

Query Match Best Local S Matches 11

53.8%; 1 Similarity 100.0%; 119; Conservation

SEQUENCE

188 AA;

188 V 21261 MW;

PROSITE; MITOGEN;

; PS00249; PDGF; ; GROWTH FACTOR; 1 21

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RESULT 4

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DISULFID
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CARBOHYD
SEQUENCE
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01-AUG-1992 (REL. 23, CREATED)
01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF) (VASCULAR PERMEABILITY FACTOR) (VPF).
                                                                               VEGF_PIG STANDARD; PRT; 190 AA. P49151; 01-FEB-1996 (REL. 33, CREATED) 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE) 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE) VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR PERMEABILITY FACTOR) (VPF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; RODENTIA.
SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBMITTED (XXX-1992) TO E
-!- FUNCTION: GROWTH FACT
CELL GROWTH. INDUCES
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SUBCELLULAR LOCATION: SECRETED BUT REMAINS I
TO THE EXTRACELLULAR MATRIX UNLESS RELEASED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PERMEABILITY.
                                                                                                                                                                                                                                                                                                                                                                                                            CECRPKK 127
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N; GROWTH FACTOR; GLYCOPROTEIN.

ID 25 67 BY SIMILA

ID 56 101 BY SIMILA

ID 60 103 BY SIMILA

ID 50 50 INTERCHAII

ID 59 59 INTERCHAII

ID 59 59 INTERCHAII

ID 59 74 74 POTENTIAL
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Similarity 100.0%;
7; Conservative
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Similarity 100.0%;
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Pred. No.
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BY SIMILARITY.
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
POTENTIAL.
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Pred. No.
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INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
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AEEB8DF3 CRC32;
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1. No. 3.30e-01;
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. 3.30e-01
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Query Match 3.2%;
Best Local Similarity 100.0%;
Matches 7; Conservative
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P15691;
O1-APR-1990 (REL. 1
O1-APR-1990 (REL. 1
O1-OCT-1996 (REL. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE: 95143284.

MEDLINE: 95143284.

SHARWA H.S., TANG Z.H., GHO B.C.H., VERDOUW P.D.;

SHARWA H.S., TANG Z.H., GHO B.C.H., VERDOUW P.D.;

BIOCHIM. BIOPHYS. ACTA 1260:235-238(1995).

-!- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS, AND EN CELL GROWTH. INDUCES ENDOTHELIAL PROLIFERATION AND VAS PERMEABILITY (BY SIMILARITY).

-!- SUBUNIT: HOMODIMER, DISULFIDE-LINKED (BY SIMILARITY).

-!- SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED OF THE PARTICLE OF THE PARTICL
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                                                                                                                        SEQUENCE OF 27-190 FROM N.A.
MEDLINE; 90121225.
TISCHER E., GOSPODAROWICZ D., MITCHELL R., SILVA M
LAU K., CRISP T., FIDDES J.C., ABRAHAM J.A.;
BIOCHEM, BIOPHYS. RES. COMMUN. 165:1198-1206(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-APR-1990 (REL. 14, CREATED)
01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR (VEGF) (VASCULAR PERMEABILITY FACTOR) (VPF).
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SEQUENCE FROM N.A.
TISSUE-HEART;
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A., AND SEQUENCE MEDLINE; 90069608.
LEUNG D.W., CACHIANES G., KUANG W. SCIENCE 246:1306-1309(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; ARTIODACTYLA.
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MEDLINE; 89286596.
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SIMILARITY).
SIMILARITY: BELONGS TO
L; M32976; G163007; -.
                                                              PERMEABILITY.
SUBUNIT: HOMODIMER, DISULFIDE-LINKED.
SUBCELLULAR LOCATION: SECRETED BUT RE
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TE; PS00249; PDGF;
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SIGNAL
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PROC. NATL. ACAD. SCI. U.S.A. 87:2628-2633(1990).
PROC. NAT
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EUKARYOTA; METAZOA; CHORDATA;
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   Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIMILARITY).
TISSUE SPECIFICITY: EXPRESSED IN THE PITUITARY, IN BRAIN,
PARTICULARLY IN SUPRAOPTIC AND PARAVENTRICULAR NUCLEI AND
CHOROID PLEXUS. ALSO FOUND ABUNDANTLY IN THE CORPUS LUTEU
THE OVARY AND IN KIDNEY GLOMERULI.
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A33787;
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                                                                                                                                                                                                                                                                                                                                                                              PS00249;
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G163811;
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GLYCOPROTEIN;
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. No. 3.30e-01;
Mismatches 0;
7;
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Best Local S
Matches
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Matches 7; Conservative
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NHAA_RHOER
P13448;
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01-NOV-1991 (REL. 20, LAS'
01-NOV-1991 (REL. 20, LAS'
COLD-REGULATED PROTEIN 2
HORDEUM VULGARE (BARLEY).
EUKARYOTA; PLANTA; EMBRYO
CYPERALES; GRAMINEAE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., STRAIN-N-774;
STRAINE; 89276338.
MEDLINE; 89276338.
IKEHATA O., NISHIYAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JAN-1990
01-AUG-1991
15-JUL-1998
SEQUENCE OF 1-187 FROM N.A.
STRAIN-BREVIBACTERIUM SP. / STRAII
MEDLINE; 91072222.
MAYAUX J.-F., CERBELAUD E., SOUBR.
J. BACTERIOL. 172:6764-6773(1990)
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PIR; E
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CATTYVELLI L., BARTELS D.;
PLANT PHYSIOL. 93:1504-1510(1990).
PLANT PHYSIOL. 93:1504-1510(1990).
PLANT PHYSIOL. P3:1504-1510(1990).
PART PART PHYSIOL. P3:1504-1510(1990).
PART PHYSIOL. P3:1504-1510(1990).
PART PHYSIOL. P3:1504-1510(1990).
PART PHYSIOL. P3:1504-1510(1990).
PART PART P4:1504-1510(1990).
PART P4:1
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P23252;
                                                                                                                                                                                                                                                                                                    MEDLINE; 91159474.
HASHIMOTO Y., NISHIYAMA
BIOCHIM. BIOPHYS. ACTA )
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SUBMITTED (MAR-1995)
                                                                                                                                                                                                                       STRAIN-ACV2;
                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. STRAIN-N-774;
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                                                                                                                                                                                                                                                         SEQUENCE
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Similarity 100.0%;
7; Conservative
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202 AA;
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                                                                                                                                                                                                                                                   N.A.
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181:563-570(1989).
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19, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
SUBUNIT ALPHA (EC 4.2.1.84)
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                                                                                                                                                                ARNAUD A., GALZY P.
TO EMBL/GENBANK/DDBJ
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Pred. No.
0; Misma
                            SOUBRIER
                                                                                   STRAIN R312;
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0; Mismatches 0;
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BC9A9416 CRC32;
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Best Local
                                                                                                                                                                     VEGF_MOUSE STANDARD; PRT; 214 AA.

000731;
01-APR 1993 (REL. 25, CREATED)
01-CCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-CCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR (VEGF) (VASCULAR
                                                                                                                                                                                                                                                                                                                       CONFLICT
                                                                                                                                                                                                                                                                                                                                                     INIT_MET
METAL
METAL
MEDLINE; 96216498.
SHIMA D.T., KUROKI M., DEUTSCH U., NG Y., ADAMIS A.
J. BIOL. CHEM. 271:3877-3883(1996).
-!- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS,
                                              SEQUENCE FROM N.A. (VEGF-1).
MEDLINE; 92355593.
CLAFFEY K.B., WILKISON W.O., SPIEGELMAN B.M.;
J. BIOL. CHEM. 267:16317-16322(1992).
                                                                                      MEDLINE; 92274860.
BREIER G., ALBRECHT U., STERRER S., DEVELOPMENT 114:521-532(1992).
                                                                                                                                           VEGF.
MUS MUSCULUS (MOUSE)
                                                                                                                                                                                                                                                                                                                                        METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE: 97341231.
HUANG W., JIA J., CUMMING
STRUCTURE 5:691-699(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-R31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-N-774;
MEDLINE; 89153549.
ENDO T., WATANABE I.;
FEBS LETT. 243:61-64(1989).
                              SEQUENCE OF 1-3 FROM N.A.
                                                                                                                              EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [5]
SEQUENCE OF 1-19.
                                                                                                      SEQUENCE FROM N.A. MEDLINE; 92274860.
                                                                                                                                       EUKARYOTA; METAZOA;
                                                                                                                                                               PERMEABILITY FACTOR)
                                                                                                                                                                                                                                                                                                                                                                                LYASE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        K-RAY CRYSTALLOGRAPHY
                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                        13 PAQAPVS
                                                                                                                                                                                                                                              17 PAQAPVS
                                                                                                                                                                                                                                                                                     3.2%;
Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                IRON;
                                                                                                                                                                                                                                                                                                                206
                                                                                                                                                                                                                                                23
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                                                                                                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                            109
112
113
114
17
19
22865 1
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                                                                                                                                      CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                               (VPF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (2.65 ANGSTROMS).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J., NELSON M.,
                                                                                                                                                                                                                                                                                       Score 7;
Pred. No.
                                                                                                                                                                                                                                                                                                               IRON.
P -> A (IN REF. 1).
S -> T (IN REF. 4).
7; 41606C46 CRC32;
                                                                                                                                                                                                                                                                                                                                              IRON.
IRON.
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                                                                                                                                                                                                                                                                                        NO.
                                                                                                RISAU
                                                                                                                                                                                                                                                                                       DB 1; Le
3.30e-01,
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               ADAMIS A.P., D'AMORE
                                                                                                                                                                                                                                                                                               Length 206;
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 ENDOTHELIAL
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Best Local (
                                                                                                                                                                                                                            PERMEABILITY FACTOR) (
VEGF OR VEGFA.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CH
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KIDNEY GLOMENULI. ALSO FOUND IN BRONCHIAL ENTHELLUM, ADRENAL GLAND AND IN SEMINIFEROUS TUBULES OF TESTIS. HIGH EXPRESSION OF VEGF CONTINUES IN KIDNEY GLOMERULI AND CHOROID PLEXUS IN ADULTS:

-!- ALTERNATIVE PRODUCTS: THREE FORMS (VEGF-1, VEGF-2) Addr. PRODUCED AS A RESULT OF ALTERNATIVE SPLICING OF THE SAME GENE. 1HH; LONGEST FORM (VEGF-3, SHOWN HERE) CONTAINS A BASIC INSERT LINKEL. TO CELL-ASSOCIATION/HEPARIN-BINDING.
-!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
EMBL; S3100; G249857; --
EMBL; S3100; G249861; --
EMBL; U41383; E215501; --
EMBL; U41383; E215501; --
EMBL; U41383; E215501; --
ENEL: M3521. M35501; --
ENEL: M3521. M3521. M35501; --
ENEL: M3521. M3521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARSPLIC
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
VARSPLIC
VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHAIN
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                           VEGF_HUMAN
P15692;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <del>: :</del>
                                                                                                                                                                                                                                                                                                                01-APR-1990 (REL. 14, CREATED)
01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <del>-</del>
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PROSITE; PS002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL;
                                                KECK P.J., HAUSER S.D., KRIVI G.,
                                                                                                                                      SCIENCE 246:1306-1309(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
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SEQUENCE FROM N.A
                               SCIENCE 246:1309-1312(1989)
                                                                                    SEQUENCE FROM N.A., MEDLINE; 90069609.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      127 CECRPKK 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CELL GROWTH. INDUCES ENDOTHELIAL PROLIFERATION AND VASCULAR PERMERBILITY.
SUBUNIT: HOMODIMER, DISULFIDE-LINKED.
SUBCELLULAR LOCATION: VEGF-1 AND VEGF-2 ARE SECRETED WHILST VEGF-3. REMAINS CELL-SURFACE ASSOCIATED UNLESS RELEASED BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE SPECIFICITY: IN DEVELOPING EMBRYOS, EXPRESSED MAINLY IN THE CHOROID PLEXUS, PARAVENTRICULAR NEUROEPITHELIUM, PLACENTA AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CECRPKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.28;
Similarity 100.08;
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86
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141
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93
127
129
129
100
140
140
164
208
                                                                                                    AND
                                                                                                                                                                                                                                                 CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25283
                                                                                                                                                                                                                                                                                                     (VPF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GLYCOPROTEIN; ALTERNATIVE
BY SIMILARITY.
                                                                                                    PARTIAL SEQUENCE.
                                                                                                                                                       KUANG W.-J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ₹.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 7;
Pred. No.
0; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             K -> N (IN VEGF-1).
MISSING (IN VEGF-1).
MISSING (IN VEGF-2).
GE -> ER (IN REF. 2).
G: 403318AF CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VASCULAR ENDOTHELIAL G
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
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INTERCHAIN (BY SIMILARITY).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                   SANZO K.,
                                                                                                                                                                                                                                                                                                                                                                                                              215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1; Le
3.30e-01;
                                                                                                                                                         GOEDDEL D.V.,
                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                 TETRAPODA; MAMMALIA;
                                                                   WARREN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 214;
                                                                                                                                                                                                                                                                                                                      (VEGF) (VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                   Τ.,
                                                                                                                                                         FERRARA N.;
                                                                   FEDER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
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CC -:- ALTERNATIVE PRODUCTS: FOUR FORMS OF VEGF ARE PRODUCED BY
CC ALTERNATIVE SPLICING OF THE SAME GENE (VEGF-121, VEGF-165,
CC VEGF-189 AND VEGF-215).
CC -:- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
DR EMBL; MG3978; G340215; -.
DR EMBL; MG3978; G340215; JOINED.
DR EMBL; MG3973; G340215; JOINED.
DR EMBL; MG3973; G340215; JOINED.
DR EMBL; MG3973; G340215; JOINED.
DR EMBL; MG3974; G340215; JOINED.
DR EMBL; MG3975; G340215; JOINED.
DR EMBL; MG3975; G340215; JOINED.
DR EMBL; MG3976; G340215; 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE; 92231879.
WEINDEL K., MARME D., W
BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRUCTURE 5:637-648(1998).
-!- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS,
CELL GROWTH. INDUCES ENDOTHELIAL PROLIFERATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE: 98035455.
MULLER Y.A., CHRISTINGER H.W.,
STRUCTURE 5:1325-1338(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               + +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STAROVASNIK M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 98298440.
FAIRBROTHER W.J., CHAMPE M.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRUCTURE BY NMR OF 137-215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE: 97477915.
FAIRBROTHER W.J., CHAMPE M.A.,
STAROVASNIK M.A.;
PROTEIN SCI. 6:2250-2260(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRUCTURE BY NMR OF 34-135 MEDLINE; 97477915.
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MULLER Y.A., LI B.,
DE VOS A.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 93145946.
FIEBICH B.L., JABGER B., SCHOELLMANN C., WEINDEL KOCHS G., MARME D., HUG H., WEICH H.A.;
EUR. J. BIOCHEM. 211:19-26(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 90062112.
CONNOLLY D.T., OLAN
SIEGEL N., HAYMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 91268072.
TISCHER E., MITCHELL R., HARTMAN T.,
FIDDES J.C., ABRAHAM J.A.;
J., BIOL. CHEM. 266:11947-11954(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROC. NATL. ACAD.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PERMEABILITY.
SUBUNIT: HOMODIMER, DISULFIDE-LINKED.
SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS
TO THE EXTRACELLULAR MATRIX UNLESS RELEASED BY HEPARIN (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97352774.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OLANDER J.V., HEUVELMAN D., MORE B.L., LEIMGRÜBER R., FE 264:20017-20024(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHRISTINGER H.W.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-36; 43-50 AND 59-81
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHRISTINGER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHRISTINGER H.W., KEYT B.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYT B.A., DE VOS A.M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             183:1167-1174(1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SILVA M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WELLS J.A.,
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Best Local
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Best Local
                                                                 Matches
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SEQUENCE
                                                                                                                                                  CARBOHYD
CARBOHYD
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                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINE; 97060319.

FIENNIKEN A.M., GALE N.W., Y
DEV. BIOL. 179:382-401(1996)
-i- SUBCELLULAR LOCATION: AT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOY-1997 (REL. 35, CREATED)
01-NOY-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOY-1997 (REL. 35, LAST ANNOTATION UPDATE)
EPHRIN-A4 PRECURSOR (EPH-RELATED RECEPTOR TYROSINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE;
MITOGEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                               MUS MUSCULUS (MOUSE)
EUKARYOTA; METAZOA; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EFA4_MOUSE 008542;
                                                                                                                                   SEQUENCE
                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                 PROSITE;
                                                                                                                                                                                                                                                                                  EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EFNA4 OR EPLG4 OR LERK4 OR EPL4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                               MGD; MGI:106643; EFNA4.
PROSITE; PS01299; EPHRIN;
                                                                                                                                                                                                                                                                                                 SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (LERK-4).
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                                13
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 ø
                    RPPAPPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JQ1464;
S17348;
RPPAPPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          192240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1VGH; 08-APR-98.
2VGH; 08-APR-98.
1VPF; 08-APR-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2VPF; PRELIMINARY
                                                                               3.28;
Similarity 100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              n 3.2% Similarity 100.0%, 7; Conservative
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                                                                                                                                   224
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S17348.
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                                                                 Conservative
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                                                                                                                                   AA;
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24698
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215
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25173
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GLYCOPROTEIN; ALTERNATIVE
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SIGNAL.
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Pred. No.
0; Min
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                                                               Score
Pred.
0; M
                                                                                                                               POTENTIAL.
EDHRIN-A4.
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CELL ATTACHMENT SITE (POTENTIAL).
; D6908052 CRC32;
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MISSING (IN VEGF-165).
MISSING (IN VEGF-121).
18547894 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                 Mismatches
                                                                                 No.
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                                                                                 DB 1; Le
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3.30e-01;
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Best Local Similarity 100.0%;
Matches 7; Conservative
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                                                             SEQUENCE OF 150-203 FROM N.A.
MEDLINE; 92310993.

DENNY P., SWIFT S., BRAND N., DABHADE N., BARTON P., ASHWORTH .

DENNY P., SWIFT S., BRAND N., DABHADE N., BARTON P., ASHWORTH .

NUCLEIC ACIDS RES. 20:2887-2887(1992).

-!- SUBCELLULAR LOCATION: NUCLEAR.

-!- SIMILARITY: CONTAINS 1 HMG BOX.

-!- CAUTION: WAS CALLED SOX-9 BY REF. 2.

EMBL; X51483; S31483.

PIR; S21483; S21483.

PIR; S21483; S22942.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VENTER J.C.;
SCIENCE 269-496-512(1995).
SCIENCE 269-496-512(1995).
-!- SUBJECTATION: PERIPLASMIC (PROBABLE).
-!- SIMILARITY: BELONGS TO THE BACTERIAL EXTRACELLULAR SOLUTE-BINDING
-!- SIMILARITY 7.
PROTEIN FAMILY 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOX3_HUMAN STANDARD: PRT; 443 AA. P41225; P35714; O1-JUN-1994 (REL. 29, CREATED) O1-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) TRANSCRIPTION FACTOR SOX-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-RD / KW20;
MEDLINE; 95350630.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HAEMOPHILUS INFLUENZAE.
PROKARYOTA; GRACILICUTES; SCOTOBACTERIA; FACULTATIVELY ANAEROBIC RODS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HI0146
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01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
HYPOTHETICAL PROTEIN HIO146 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.

MEDLINE; 94134672.

STEVANOVIC M., LOVELL-BADGE R., COL.

HUM. MOL. GENET. 2:2013-2018(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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   DNA-BINDING; NUCLEAR PROTEIN; TRANSCRIPTION REGULATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64 YPSSQLG 70
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329 AA;
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36513 MW;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COLLIGNON J.,
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177 PRSVPGW 183 146 PRSVPGW 152	Query Match 3.2%; Score 7; DB 1; Length 483; Best Local Similarity 100.0%; Pred. No. 3.30e-01; Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps	(3) 22	A04232; V	EMBL; M1912; G215374;	TRAIN NIJMEGER	LUITEN R.G.M., PUTTERMAN D.G., SCHOENMAKERS J.G.G., KONINGS R.N.H., DAY L.A.;	SEQUENCE FROM N.A. STRAIN-NEW-YORK, AND NIJMEGEN; MEDLINE: 85293231	(1)	PHAGE PF3.	PROTEIN (OR	21-JUL-1986 (REL. 01, LAST SEQUENCE UPDATE) 01-MAR-1989 (REL. 10, LAST ANNOTATION UPDATE)	01, CREAT	COA2_BPPF3 STANDARD; PRT; 483 AA.	15	155 APGAPSP 161	57 APGAPSP 63	Query Match 3.2%; Score 7; DB 1; Length 443; Best Local Similarity 100.0%; Pred. No. 3.30e-01; Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps	À,	176 176 D -> E (IN REF.	77 150 361 POLY-ALA.	DOMAIN 337 344 POLY-ALA.	290 294		129 133 POLY
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Search completed: Mon Job time : 22 secs. Nov 30 13:09:47 1998 THIS PAGE BLANK (USPTO)

Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (p. 1991-1998 Oniversity of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Thu Nov 26 00:08:55 1998; MasPar time 11.77 Seconds 685.760 Million cell updates/sec

Tabular output not generated.

Title: Description: Perfect Score: Sequence: >US-09-033-662-2 (1-221) from US09033662.pep 221 1 MRRCRISGRPPAPPGVPAQA......

COGRGLELNPDTCRCRKLRR 221

Scoring table:

Searched: TABLE unitprotable Gap 60 120441 seqs, 36531193 residues

Database: Post-processing: Minimum Match Ob Listing first 1000 summaries pir56 1:pir1 2:pir2 3:pir3 4:pir4 5:nr13d

Statistics: Mean 3.326; Variance 0.440; scale 7.555

Pred. No. is the number of results predicted by chance to have a score of the tesult being printed, and is derived by analysis of the total score distribution.

Tue

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Page 3

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Page 4

Result Query
No. Score Match Length DB ID
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1.45e+03	immunoglobulin proteo		v	210	2.3	U	405	
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1	hypothetical protein		N	205		u	483	
1.45e+03	cadmium-induced prote		N	204	2	u	482	
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Blochim. Blophys. Acca (1995) 1260-235-238
Nucleokide sequence and expression of the porcine vascular
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J. Bacteriol. (1990) 172:6764-6773
Purification, cloning, and primary structure of an
enantiomer selective amidase from Brevibacterium ap. strain
pli: structural evidence for genetic coupling with nitrile
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fformal_name Ovis orientalis aries, Ovis ammon aries
scommon_name domestic sheep
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sformal_name Sus acrofa domestica scommon_name domestic pig
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ACCESSIONS REFERENCE *authors *journal *title

1; A43351; A61029

Breier, G.; Albrecht, U.; Sterrer, S.; Risau, W. Development (1993) 114:521-532 Expression of vacular endothelial growth factor during embryonic angiogenesis and endothelial cell differentiation.

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Conn. G.; Bayne, M.L.; Soderman, D.D.; Rwok, P.N.; Sullivan, R.A.; Pallai, T.M.; Hope, D.A.; Thomas K.A.

Proc. Natl. Acad. Sci. U.S.A. (1990) 87:568-7632

Anino acid and CDRA sequences of a vascular endothelial cell mitogen that is homologous to platelet-derived growth
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Vascular endothelial growth factor: a new member of the
platelet-derived growth factor gene family.

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Vascular endothelial growth factor is a secreted angiogenic
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**residues of 115, 2R*, 119-190 **label CLA Rosenthal, R.A.: Megyesi, J.F.: Renzel, W.J.; Ferrara, N.: Follman J. Growth Eartors (1990) 4:53-59 Conditioned medium from mouse sercoma 180 cells contains Yascular endothelial growth forcor.

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Db 127 CECRPKK 133 ||||||| Oy 121 CECRPKK 127

RESULT 12 ENTRY

ACCESSIONS REFERENCE *authors *journal *title ORGANISM DATE Cattivelli, L.: Bartels, D.
Plant Physiol. (1990) 93:1504-1510
Molecular cloning and characterisation of cold-regulated
genes in barley.
B45512 B45312 - *type fragment cold-regulated protein 2 - barley (fragment) formal_name Hordeum vulgare #common_name barley 03-um 1993 #sequence_revision 30-8ep-1993 #text_change 02-8ep-1997

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protein 2-19:47-66:144-159 ##label IKE2 .e

*Authors Endo, T.; Watanabe, I.; -64
*fournal FEES Lett. (1989) 243:61-64
*fille Nitrile hydretase of Rhodococcus sp. N-774. Purification and *cross-references mulo acid sequences.
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caseription Cloning, sequencing of the modified nitrile hydratase gene description cloning, sequencing of the modified nitrile hydratase gene cloning action mutant strain Rhodococcus sp. ACV2. protein 2-19,'T' ##label END

**residues 1-207 **label NI2 **ercos.references EMBL:X54074; NID:g46410; PID:g46412 **experimental_source strain N-774 NCE S15070

mistionoo, Y.; Mishiyama, M.; IXehata, O.; Horinouchi, S.; Beppu, T. Jochim. Biophys. Acts (1991) 1088:225-223 Oning and characterization of an andiase gene from Rhodococcus species N-774 and its expression in Escherichia

Page 31

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*cross-references MUID:91159474
*accession \$15071

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Matches 7; Conservative *product nitrile hydratase alpha chain *status experimental *label MAT *length 207 *molecular-veight 22996 *checksum 2749 Score 7; DB 2; Length 207; Pred. No. 9.45e-01; 0; Mismatches 0; Indels 0; Gaps

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SUMMARY

14 PAQAPVS 20 ||||||| 17 PAQAPVS 23

RESULT 15
ENTRY
TITLE
CONTAINS

ACCESSIONS REFERENCE *authors *journal *title ORGANISM DATE *formal_name Mus musculus *common_name house mouse 03-Peb-1994 *sequence_revision 03-Peb-1994 *text_change 09-Mar-1996 A44881 stype complete
vascular endothelial growth factor-3 precursor - mouse
vascular endothelial growth factor-2; vascular permeability 1; C44881; A60932; S52136

#cross-references #accession A44 #EXPLECTIVE MRNN
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*EXPERIMENTAL_SOUTCE embryo
Sequence extracted from NCBI backbone (NCBIN:104677,
**ROOLE NCBIP:104678) Breier, G.; Albrecht, U.; Sterrer, S.; Risau, W. Development (1993) 114-521-532 Expression of vascular endothelial growth factor during embryonic angiogenesis and endothelial cell differentiation. Company of the company of the

REFERENCE #authors A60932

Clause, M.; Gerlach, M.; Gerlach, H.; Brett, J.; Wang, F.; Familletti, P.C.; Pan, Y.C.E.; Olander, J.V.; Connolly, 1-40,209-214 **Label BR2

sequence extracted from NCBI backbone (NCBIN:107624,
NCBIP:107625)

#accession C++ou.
##molecule_type mRNA
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Page 29

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Page 30

191 RCRCRRR 197

ORGANISM DATE RESULT ENTRY TITLE JM0705 stype complete nitrile hydratase (BC 4.2.1.84) alpha chain - Rhodococcus al_name Rhodococcus erythropolis 1-1994 #sequence_revision 14-Jul-1994 stext_change Sep-1997

ACCESSIONS REFERENCE #authors #journal #title Duran, R.; Nishiyama, M.; Borinouchi, S.; Beppu, T. Biosci. Biotechnol. Biochem. (1993) 57:1323-1328 Characterization of nitrill hydratase genes cloned by DNA screeing from Rhodococcus erythropolis.

GENETICS #gene KEYWORDS SUMMARY Ouery Match 2.3% Score 7, DB 2; Length 207; Best Local Schilarity 100.0% Preds No. 9.65-01; Length 207; Matches 7; Conservative O'd Mimatches 0; Indels 0; Gaps NHase carbon-oxygen lyase; hydro-lyase slength 207 smolecular-weight 23116 schecksum 4579

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on-san-1997 A30463; S16606; S02070; S54105; S62095; S15071;

REFERENCE *author ACCESSIONS tebata, O.; Mishiyama, M.; Horinouchi, S.; Beppu, T. ur. J. Blochem. (1889) 181:553-570 Finary structure of fitthle hydratase deduced from the nucleotide sequence of a Rhodococcus species and its

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REFERENCE

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RALLS .C.; Mitsul, Y.; Wadhwa, R.

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South spontaneous immortalization of murine fibroblasts.

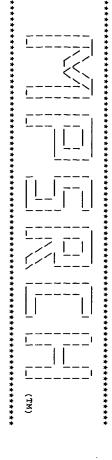
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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Tabular output not generated. Mon Nov 30 13:08:17 1998; MasPar time 7.61 Seconds 469.670 Million cell updates/sec

Title: Description: Perfect Score: >US-09-033-662-2 (1-221) from US09033662.pep

Sequence: 221
1 MRRCRISGRPPAPPGVPAQA......COGRGLELNPDTCRCRKLRR 221

Scoring table: TABLE unitprotable Gap 60

131922 seqs, 16180660 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database

a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
1:part1 2:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 2.708; Variance 0.678; scale 3.995

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

16 17 18	10 11 12 13	8 7 6 5 4 8 2 1	Result
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T tumours, inflammation or rheumatoid arthritis

Claim II; Page 44; 56pp; English.

This sequence is that of human vascular endothelial growth factor 3 (VEGF3). The growth factor can be used to stimulate angiogenesis and wound healing, and to promote vascular tissue repair. It can also be used to induce the growth of damaged bone, periodontium or ligament tissue. VEGF3 antagonists can be used to inhibit tumour growth, or to treat diabetic retinopathy, inflammation, rheumatoid arthritis or psoriasis. VEGF3 is structurally related to the PDGF/VEGF family and it includes the conserved signature motif for the family (see features table).
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Best Local 9
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W04831;
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06-JUN-1995; U
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01-SEP-1997 (first entry)
Human vascular endothelial growth factor; hVEGF3; angiogenesis;
Human vascular endothelial growth factor; hVEGF3; angiogenesis;
tumour; inflammation; rheumatoid arthritis; diabetic retinopathy;
psoriasis; bone; periodontium; ligament; antagonist.
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WPI; 97-043056/04.
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W07611;
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                   standard;
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l Similarity 100.0%;
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69.82
/label- PDGF/VEGF_family_signature
/note- "conserved PXCVXXXRCXGCCN motif"
                   Protein;
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Alpha-1,6-glucan-6-gl
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Human islet cell anti
Type I diabetes-assoc
Human insulinoma-asso
Macaque islet cell an
Human protein tyrosin
Type I diabetes-assoc
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RESULT
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N WO9526736-A1.

D 06-SEP-1996; U02957.

PF 01-MAR-1996; US-397651.

PR 01-MAR-1995; US-397651.

PR 06-DEC-1995; US-464277.

PR 06-DEC-1995; US-569063.

PA (LUDW-) LUDWIG INST CANCER RES.

PA (UYHE-) UNIV HELSINKI LICENSING LTD OY.

PI Alitalo K, Eriksson U, Olofsson B, Pajusola K;

PR WPI; 96-412582/41.

DR WPI; 96-412582/41.

PT Vascular endothelial growth factor VEGF-B proteins - useful resolutions and organisms in wound healing, also related nuc
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PT and antibodies for cancer diagnosis
PS Claim 18; Page 62; 107pp; English.
CC W04824-W04831 represent the vascular endothelial growth factor (VEGF)
CC proteins of the invention, which promote endothelial or mesodermal ceil
CC proteins of the invention, which promote endothelial or mesodermal ceil
CC proteins of the invention, which promote endothelial or mesodermal ceil
CC proteins of the invention, which promote endothelial or mesodermal ceil
CC proteins of the invention, which promote endothelial or mesodermal ceil
CC sometimes referred to as vascular permeability factor (VPF). VEGF has
CC diverse effects, depending on the specific biological context in which is
CC is found. VEGF is also a glycosylated carling endothelial
CC contributes to induction of angiogenesis in vivo by promoting endothelial
CC tissue regeneration/reorganisation. The VEGF proteins of the invention
CC share the angiogenic and other properties of VEGF, but are distributed
CC and expressed in tissues differently to VEGF. The proteins can therefore
CC be used to accelerate angiogenesis in wound healing. Antibodies against
CC complementary to the coding sequences for the proteins of the invention
CC can also be used for inhibiting angiogenesis. The antibodies can
CC can also be used to detect VEGF-B coding sequences. Quantification of
CC VEGF B in cancer biopsy specimens may be useful as an indicator of
CC metastatic risk. VEGF-B expression in a cell can be retarded using
CC especially useful in retarding VEGF expression in tumour cells.

SO Sequence 207 AA;
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Matches 14
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W00725;
W00725;
30-NOV-1996
                                                                 Key
                                                                                                                                Vascular endothelial growth Vascular endothelial growth astroglial proliferation.
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Vascular endothelial growth factor-B186.
Vascular endothelial proliferation; vascular endothelial growth factor; VPF
Endothelial cell; proliferation; cationic dimer; tissue regeneration;
VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration;
vascular permeability factor; cell mitogen; angiogenesis; cell growth;
embryonic development; wound healing; tissue reorganisation; antibody;
cancer; metastatic risk; tumour cell; mouse.
                                                                                                 Homo sapiens
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Similarity 100.0%;
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                                                          Location/Qualifiers
                                                                                                                                                               factor-like protein SON
factor; VEGF; VEGF165;
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Pred. No. 3.09e-233;
0; Mismatches 0;
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W00727;
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Human vascular endothelial growth factor (VEGF)-like polypeptide (W00725) is capable inducing the proliferation of vascular endothelial cells, of interacting with fit-1/fkl-1 receptors, and of inducing cell migration, cell survival and/or an increase in intracellular levels of alkaline phosphatase. It shows 33.3% identity with human VEGF (see also W00724). Splice variants (W00726-28) of SOM175 have also been identified. Recombinant SOM175 can be produced in host cells transformed with vectors carrying SOM175 CDNA (see also 733610). It is useful for inducing astroglial proliferation and for promoting neural survival and/or proliferation. Sequence 207 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-SEP-1996;
22-FEB-1996;
02-MAR-1995;
                                                                                                                                                                   06-SEP-1996;
22-FEB-1996;
02-MAR-1995;
20-NOV-1995;
22-DEC-1995;
                                                                                                                                                                                                                                                                                                             30-NOV-1996 (first entry)
Vascular endothelial growth factor-like protein SOM175-e6+e7.
Vascular endothelial growth factor; VEGF; SOM175-e6+e7; neuron; astroglial proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-MAR-1995; AU-001457.
20-NOV-1995; AU-006647.
22-DEC-1995; AU-007274.
(AMRA-) AMRAD OPERATIONS PTY LTD.
Grimmond S, Hayward NK, Larsson C,
Claim 13; Page 46; 113pp; English.

Splice variants (W00726-28) of the human vascular endothelial factor-like polypeptide SoM175 (see also W00725) are products CDNA clones (see also T33611-13) respectively lacking exon 6,
                                                                  New growth factor related to vascular endothelial growth factor - useful for inducing astroglial proliferation and promoting neuronal
                                                                                                WPI; 96-412774/41.
N-PSDB; T33612.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New growth factor related to vascular endothelial growth factor -useful for inducing astroglial proliferation and promoting neuronal
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N-PSDB; T33610.
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Similarity 100.0%;
149; Conservative
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AU-001457.
                                                                                                                                          OPERATIONS Hayward NK,
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                                                                                                                                                                                                                                                     Sig_peptide
                                                                                                                                          PTY LTD.
Larsson
                                                                                                                                                                                                                                                                                                                                                                                     143
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Pred. No. 3.09e-233;
0; Mismatches 0;
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06-SEP-1996; AUU094.

22-FEB-1996; AU-001457.

20-MAR-1995; AU-001457.

R 20-NCV-1995; AU-006647.

R 22-DEC-1995; AU-007274.

22-DEC-1995; AU-007274.

P 22-DEC-1995; AU-007274.

R 22-DEC-1995; AU-007274.

R 22-DEC-1995; AU-007274.

R 22-DEC-1995; AU-007274.

R 22-DEC-1995; AU-007274.
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Best Local S
Matches 11
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Best Local
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                                                                                                                                                                                      Claim 12; Page 42-43; 113pp; English. Splice variants (W00726-28) of the human vascular endothelial growth factor-like polypeptide SOM175 (see also W00725) are products of cDNA clones (see also T33611-13) respectively lacking exon 6, exons 6+7, and exon 4 of the SOM175 gene (see also T33610). They show at least 1 of the properties of SOM175 including the ability to induce proliferation of vascular endothelial cells, to interact with fit-1/fik-1 receptors, and to induce cell migration, cell survival and/or an increase in intracellular levels of alkaline phosphatase. Recombinant SOM175 proteins can be used to induce astroglial proliferation and to promote neural survival and/or proliferation. Sequence 188 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6+7, and exon 4 of the SOM175 gene (see also T33610). They show at least 1 of the properties of SOM175 including the ability to induce proliferation of vascular endothellal cells, to interact with flt-1/flk-1 receptors, and to induce cell migration, cell survival and/or an increase in intracellular levels of alkaline phosphatase. Recombinant SOM175 proteins can be used to induce astroglial
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Vascular endothelial grow
astroglial proliferation.
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                                                                                                                                                                                                                                                                                                                                                                                                   New growth factor related to vascular endothelial growth factor useful for inducing astroglial proliferation and promoting neuro
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  proliferation and to promote neural survival and/or proliferation Sequence 143\ AA;
   77
                               78
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cggccpddglecvptgqhqvrmqilmirypssqlgemsleehsqcecrpkkkdsavkpdr 137
              cggccpddglecvptgqhqvrmqilmirypssqlgemsleehsqcecrpkkkdsavkpd
                                                                              paqapvsqpdapghqrkvvswidvytratcqprevvvpltvelmgtvakqlvpscvtvqr 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                     96-412774/41.
CGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD
                                                               PAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQR
                                                                                                                              119;
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l Similarity 100.0%;
l20; Conservative
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Similarity 100.0%;
119; Conservative
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Pred.
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Pred. No. 7.
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factor; VEGF; SOM175-e6; neuron;
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                                                                                                                         re 119; DB 19; I
d. No. 3.81e-182;
Mismatches 0;
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7.62e-184;
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PT and antibodies for cancer diagnosis
Claim 18; Page 59; 107pp; English.
CC W04824-W04831 represent the vascular endothelial growth factor (VEGF)
CC proteins of the invention, which promote endothelial or mesodermal cell
CC proteins of the invention, which promote endothelial or mesodermal cell
CC proliferation. VEGF is also a glycosylated cationic dimer, and is
CC diverse effects, depending on the specific biological context in which it
CC is found. VEGF is a potent endothelial cell mitogen, and directly
CC contributes to induction of angiogenesis in vivo by promoting endothelial
CC tissue regeneration/reorganisation. The VEGF proteins of the invention
CC cell growth during normal embryonic development, wound healing, and
CC tissue regeneration/reorganisation. The VEGF proteins of the invention
CC can dexpressed in tissues differently to VEGF. The proteins can therefore
CC be used to accelerate angiogenesis in wound healing. Antibodies against
CC the proteins can be used for inhibiting angiogenesis. The antibodies can
CC complementary to the coding sequences for the proteins of the invention
CC can also be used for detect VEGF-B coding sequences. Owantification of
CC weff-B in cancer biopsy specimens may be useful as an indicator of
CC metastatic risk. VEGF-B expression in a cell can be retarded using
CC especially useful in retarding VEGF expression in tumour cells.
SQ Sequence 188 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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01-MAR-1996; US-397651.
01-MAR-1995; US-397651.
06-JUN-1995; US-469427.
06-DEC-1995; US-569063.
(LUDW-) LUDWIG INST CANCER RES.
(LUDW-) LUDWIG INST CANCER RES.
(UYHE-) UNIV HELSINKI LICENSING LTD OY.
Alitalo K, Eriksson U, Olofsson B, Pajl
N-PSDB, T37913.
                                                                                              30-NOV-1996 (first entry)
Vascular endothelial growth factor-like protein SOM175-e4
Vascular endothelial growth factor; VEGF; SOM175-e4; neuro
astroglial proliferation.
WO9627007-A1
                                                                           Homo sapiens
                                                                                                                                                                              W00728 standard;
W00728;
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Fibrosarcoma vascular endothelial growth factor-B167.
Fibrosarcoma vascular endothelial growth factor; VPF
Endothelial cell; proliferation; vascular endothelial growth factor; VPF
VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration;
vascular permeability factor; cell mitogen; angiogenesis; cell growth;
embryonic development; wound healing; tissue reorganisation; antibody;
cancer; metastatic risk; tumour cell; mouse.
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                                                                                                                                                                                                                                                                                 CGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                 119;
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Similarity 100.0%;
119; Conservative
                                                        Location/Qualifiers
                                                                                                                                                                                                   Protein; 101
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Pred. No. 3.81e-182;
0; Mismatches 0;
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Matches 8
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01-MAR-1995; US-397651.
06-JUN-1995; US-369427.
06-DEC-1995; US-569063.
(LUDW-) LUDWIG INST CANCER RES.
(LYBE-) UNIV HELSINKI LICENSING LTD OY.
Alitalo K, Eriksson U, Olofsson B, Paju WPI; 96-412582/41.
N-PSDB; T37909.
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22-FEB-1996; AU0094.
22-MAR-1995; AU-001457.
20-NOV-1995; AU-006647.
22-DEC-1995; AU-007274.
(AMRA-) AMRAD OPERATIONS P
GILLIMOND S, HAYWARD NK,
Vascular endothelial growth factor VEGF-B proteins - useful to accelerate anglogenesis in wound healing, also related nucleic acid and antibodies for cancer diagnosis claim 18; Page 53-54; 107pp; English.

W04824-W04831 represent the vascular endothelial growth factor (VEGE) proteins of the invention, which promote endothelial or mesodermal (CC) proliferation. VEGF is also a glycosylated cationic dimer; and is sometimes referred to as vascular permeability factor (VPF). VEGE has diverse effects, depending on the specific biological context in which is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of anglogenesis in vivo by promoting endothelial cell growth during normal embryonic development, wound healing, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vascular endothelial growth factor fragment #1.

Endothelial cell; proliferation; vascular endothelial growth factor; VET;

VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration;

vascular permeability factor; cell mitogen; angiogenesis; cell growth;

embryonic development; wound healing; tissue reorganisation; antibody;

cancer; metastatic risk; tumour cell; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      splice variants (W00726-28) of the human vascular endothelial growth factor-like polypeptide SOM175 (see also W00725) are products of cDNA clones (see also T33611-13) respectively lacking exon 6, exons 6+7, and exon 4 of the SOM175 gene (see also T3361). They show at least 1 of the properties of SOM175 including the ability to induce proliferation of vascular endothelial cells, to interact with flt-L/flk-1 receptors, and to induce cell migration, cell survival and/or an increase in intracellular levels of alkaline phosphatase. Recombinant SOM175 proteins can be used to induce astrogical
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28-APR-1997
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N-PSDB; T33613.
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Sequence 101 AA;
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Similarity 100.0%;
83; Conservative
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Pred. No.
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3.21e-121;
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CC proteins of the invention, which promote andothelial or mesodermal cell conditions of the invention, which promote andothelial or mesodermal cell conditions referred to as vascular permeability factor (VPF). VEGF has conditioned dimer, and is conditioned from the specific biological context in which it is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of angiogenesis in vivo by promoting endothelial cell growth during normal embryonic development, wound healing, and conditions are the angiogenic and other properties of VEGF, but are distributed and expressed in tissues differently to VEGF, but are distributed conditions can be used for inhibiting angiogenesis. The antibodies can also be used to accelerate angiogenesis in wound healing. Antibodies can also be used to detect VEGF-B coding sequences. Ouantification of CC vEGF-B in cancer biopsy specimens may be useful as an indicator of constantic risk. VEGF-B expression in a cell can be retarded using antisense sequences direct against the VEGF coding sequences, this is especially useful in retarding VEGF expression in tumour cells.
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01-MAR-1996; U02957.
01-MAR-1995; US-397651.
06-JUN-1995; US-469427.
06-DEC-1995; US-569063.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tissue regeneration/reorganisation. The VEGF proteins of the invention share the angiogenic and other properties of VEGF, but are distributed and expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate angiogenesis in wound healing. Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can also be used diagnostically to quantitatively detect VEGF-B. Primers complementary to the coding sequences for the proteins of the invention can also be used to detect VEGF-B coding sequences. Quantification of VEGF-B in cancer biopsy specimens may be useful as an indicator of metastatic risk. VEGF-B expression in a cell can be retarded using antisense sequences direct against the VEGF coding sequences, this is especially useful in retarding VEGF expression in tumour cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vascular endothelial growth factor-B112. 
Endothelial cell; proliferation; vascular endothelial growth factor; VPF; 
VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; 
vascular permeability factor; cell mitogen; anglogenesis; cell growth; 
embryonic development; wound healing; tissue reorganisation; antibody; 
cancer; metastatic risk; tumour cell; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and antibodies for cancer diagnosis
Claim 18; Page 58; 107pp; English.
W04824-W04831 represent the vascular endothelial growth factor (VEGF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W04828;
28-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vascular endothelial growth factor VEGF-B proteins - useful to accelerate angiogenesis in wound healing, also related nucleic
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(UYHE-) UNIV HELSINKI LICENSING LTD OY.
Alltalo K. Eriksson U, Olofsson B, P
WPI: 96-412582/41.
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Local Similarity 100.0%;
nes 39; Conservative
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Pred. No. 4.35e-48;
0; Mismatches 0
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Query Match 17.6%; Best Local Similarity 100.0%;

Score 39; DB 21; Pred. No. 4.35e-48;

DB 21;

Length 133

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CC laim 18; Page 55-56; 107pp; English.

CC W04824-W04831 represent the vascular endothelial growth factor (VEGF)

CC proteins of the invention, which promote endothelial or mesodermal cell

CC sometimes referred to as vascular permeability factor (VPF). VEGF has

CC diverse effects, depending on the specific biological context in which it

CC is found. VEGF is a potent endothelial cell mitogen, and directly

CC contributes to induction of anglogenesis in vivo by promoting endothelial

CC cell growth during normal embryonic development, wound healing, and

CC tissue regeneration/teorganisation. The VEGF proteins of the invention

CC share the anglogenic and other properties of VEGF, but are distributed

CC and expressed in tissues differently to VEGF but are distributed

CC and expressed in tissues differently to VEGF. The proteins can therefore

CC be used to accelerate anglogenesis in wound healing. Antibodies can look be used diagnostically to quantitatively detect VEGF B. Primers

CC complementary to the coding sequences for the proteins of the invention

CC VEGF B in cancer blopsy specimens may be useful as an indicator of

CC VEGF B in cancer blopsy specimens may be useful as an indicator of

CC vegeratatic risk. VEGF B expression in a cell can be retarded using

CC especially useful in retarding VEGF expression in tumour cells.
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Best Local S
Matches 3
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W09626736-A1.
06-SEP-1996.
01-MAR-1995; U02957.
01-MAR-1995; US-397651.
06-JUN-1995; US-469427.
06-DEC-1995; US-569063.
                                                                                  W00864;
30-NOV-1996 (first entry)
Murine VRF167.
VRF; vascular endothelial growth factor; VEGF; SOM175; neuron:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Heart vascular endothelial growth factor-B167. Endothelial growth factor: VTF Endothelial cell; proliferation; vascular endothelial growth factor: VTF VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration: vascular permeability factor; cell mitogen; angiogenesis; cell growth: embryonic development; wound healing; tissue reorganisation; antibody: cancer; metastatic risk; tumour cell; mouse.
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WPI; 96-412582/41.
N-PSDB; T37910.
Mus musculus.
Key
                                                              astroglial proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                       W00864 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (LUDW-) LUDWIG INST CANCER RES.
(UYHE-) UNIV HELSINKI LICENSING LTD OY
Alitalo K, Eriksson U, Olofsson B,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           h 17.6%;
Similarity 100.0%;
39; Conservative
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   Location/Qualifiers
                                                                                                                                                                                                                   Protein; 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 39; DB 21; L
Pred. No. 4.35e-48;
0; Mismatches 0;
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01-MAR-1996; U7997651.
01-MAR-1995; US-197651.
06-JUN-1995; US-469427.
06-DEC-1995; US-469427.
06-DEC-1995; US-569063.
(LUDW-) LUDWIG INST CANCER RES.
(UYHE-) UNIV HELSINKI LICENSING LTD OY.
Alitalo K, Eriksson U, Olofsson B, Paj
WPI; 96-412582/41.
N-PSDB; T37914
Claim 18; Page 60-61; 107pp; English.

Claim 18; Page 60-61; 107pp; English.

W04824-W04831 represent the vascular endothelial growth factor (VEGF) proteins of the invention, which promote endothelial or mesodermal cell proliferation. VEGF is also a glycosylated cationic dimer, and is sometimes referred to as vascular permeability factor (VPF). VEGF has diverse effects, depending on the specific biological context in which it is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of angiogenesis in vivo by promoting endothelial cell growth during normal embryonic development, wound healing, and tissue regeneration/reorganisation. The VEGF proteins of the invention share the angiogenic and other properties of VEGF, but are distributed
                                                                                                                                                                                                                                                                                                                                                      Vascular endothelial growth factor VEGF-B proteins - useful to accelerate angiogenesis in wound healing, also related nucleic and antibodies for cancer diagnosis
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Endothelial cell; proliferation; vascular endothelial growth factor; VPF; Endothelian, mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 5; Fig 9; 113pp; English.

WRF167 (W00863) is the murine homologue of an alternatively spliced variant (W00726) of human vascular endothelial growth factor-like variant (W00726) of promoting redothelial growth factor-like polypeptide SOM175 (W00725), a protein capable of inducing astroglial proliferation and of promoting neural survival and/or proliferation. Its amino acid sequence was deduced from a CDNA clone (T18810) isolated from a new-born mouse brain cDNA library. WRF167 shows 85% identity and 92% similarity to its human counterpart. It lacks 101 amino acids found in VRF186 (W00863), the murine homologue of SOM175, owing to a deletion of exon 6 during splicing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer; metastatic risk; tumour cell; mouse.
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W04830;
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useful for inducing
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02-MAR-1995; AU-001457.
20-NOV-1995; AU-006647.
22-DEC-1995; AU-007274.
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28 APR-1997 (first entry)
28 APR-1997 (first entry)
Heart vascular endothelial growth factor-B174.
Endothelial cell; proliferation; vascular endothelial growth factor; VPF Endothelium; mesodermal cell; cationic dimer; tissue regeneration; VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; VEGF; endothelium; factor; cell mitogen; angiogenesis; cell growth;

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20-NOV-1995; AU-006647.
22-DEC-1995; AU-007274.
(AMRA-) AKRAD OPERATIONS I
Grimmond S, Hayward NK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            be used to accelerate anglogenesis in wound healing. Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can also be used diagnostically to quantitatively detect VEGF-B. Primers complementary to the coding sequences for the proteins of the invention can also be used to detect VEGF-B coding sequences. Quantification of VEGF-B in cancer blopsy specimens may be useful as an indicator of metastatic risk. VEGF-B expression in a cell can be retarded using antisense sequences direct against the VEGF coding sequences. This is especially useful in retarding VEGF expression in tumour cells.
                                                                                                                                                                                                                                                                                                                                     Example 5; Fig 9; 113pp; English.

Example 5; Fig 9; 113pp; English.

VRF186 (W00863) is the murine homologue of human vascular endothelial growth factor-like polypeptide SOM175 (W00725), a protein capable of inducing astroglial proliferation and of promoting neural survival and/or proliferation. Its amino acid sequence was deduced from a cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain cDNA clone (T13809) isolated from a new-born mouse brain clone (T13809) isolated from a new-born mouse brain clone (T13809) isolated from a new-born mouse brain clone
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VRF; vascular endothelial
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al proliferation and promoting neuronal
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CC W04824-W04831 represent the vascular endothelial growth factor (VEGF)

CC W04824-W04831 represent the vascular permote endothelial or mesodermal cell

CC proteins of the invention, which promote endothelial or mesodermal cell

CC proteins of the invention, which promote endothelial or mesodermal cell

CC grotiferation. VEGF is also a glycosylated cationic dimer, and is

CC diverse effects, depending on the specific biological context in which it

CC diverse effects, depending on the specific biological context in which it

CC diverse effects, depending on the specific biological context in which it

CC contributes to induction of angiogenesis in vivo by promoting endothelial

CC contributes to induction of angiogenesis in vivo by promoting endothelial

CC clisue regeneration/reorganisation. The VEGF proteins of the invention

CC share the angiogenic and other properties of VEGF, but are distributed

CC can expressed in tissues differently to VEGF. The proteins can therefore

CC be used to accelerate angiogenesis in wound healing. Antibodies can

CC also be used dispnostically to quantitatively detect VEGF-B. Primers

CC complementary to the coding sequences for the invention of

CC vectors also be used to detect VEGF-B coding sequences. Quantification of

CC vectors also be used to bopsy specimens may be useful as an indicator of
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Matches 35; Conservative
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01-MAR-1996; US-397651.
01-MAR-1995; US-397651.
06-JUN-1995; US-469427.
06-DEC-1995; US-569063.
(LUDW-) LUDWIG INST CANCER RES.
(UYHE-) UNIV HELSINKI LICENSING LTD OY.
Alltalo K, Exiksson U, Olofsson B, Pajusola K;
WPI; 96-412582/41.
N-PSDB; T37911.
                                                                                                    W09626736-A1.

06-SEP-1996.

01-MAR-1996; U02957.

01-MAR-1995; US-397651.

06-JUN-1995; US-469427.

06-JUN-1995; US-569063.

(LUDW-) LUDWIG INST CANCER RES.

(LUDW-) LUDWIG INST CANCER RES.

(LUDW-) UNIV HELSINKI LICENSING LTD OY.

Alitalo K, Eriksson U, Olofsson B, Pajusola K;

Alitalo K, Eriksson U, Olofsson B, Pajusola K;

ANITALO K, ERIKSSON B, Pajusola K;

ANITALO K, ERIKSSON B, Pajusola K;

ANITALO K, ERIKSSON B, Pajusola K;

WPI; 96-412582/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W04833 standard; peptide; 23 AA. W04833; w04833; 30-APR-1997 (first entry) 30-APR-1997 (first entry) N-terminal peptide of vascular endothelial growth factor: VPF; Endothelial cell; proliferation; vascular endothelial growth factor; VPF; versilar permeability factor: cell mitogen; anglogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody; cancer; metastatic risk; tumour cell; human.
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Mus musculus.
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Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing, and antibodies for cancer diagnosis
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Pred. No. 1.32e-41;
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                                  proteins - useful to also related nucleic
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Example 8; Page 31; 107pp; English.

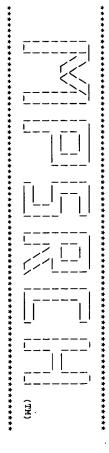
CC This sequence represents the N-terminal peptide of a vascular endothelial CC growth factor (VEGF) protein of the invention (see W04824-W04831). This capacitate of the invention (see W04824-W04831). This content human VEGF-B. VEGF is a plycosylated cationic dimer, which CC gromotes endothelial or mesodermal cell proliferation, and is sometimes CC effects, depending on the specific biological context in which it is CC found. VEGF is a potent endothelial cell mitogen, and directly CC contributes to induction of angiogenesis in vivo by promoting endothelial CC cell growth during normal embryonic development, wound healing, and CC etissue regeneration/reorganisation. The VEGF proteins of the invention Share the angiogenic and other properties of VEGF, but are distributed and expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate angiogenesis in wound healing. Antibodies can the proteins can be used for inhibiting angiogenesis. The antibodies can also be used to detect VEGF-B coding sequences. Ouantification of VEGF-B in cancer biopsy specimens may be useful as an indicator of complementary to the coding sequences for the proteins of the invention of VEGF-B in cancer biopsy specimens may be useful as an indicator of metastatic risk. VEGF-B expression in a cell can be retarded using canting and coding sequences, this is especially useful in retarding VEGF expression in tumour cells.
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Search completed: Mon Nov 30 13:09:07 1998 Job time: 50 secs.

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Tabular output not generated. Run on: Thu Nov 26 00:01:57 1998; MasPar time 4.69 Seconds 148.639 Million cell updates/sec

Description: Perfect Score: Sequence: >US-09-033-662-2 (69-82) from US09033662.pep 1 PSCVTVQRCGGCCP 14

Scoring table: PAM 150 Gap 11

Searched: 165420 seqs, 49795644 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus

Mean 23.748; Variance 38.778; scale 0.612

Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

200 8 7 6 5 4 4 3 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Result
121 122 122 123 123 123 97 97 97 97 91 91 87 87	Score
1100 1100 100 80 80 175 175 175 175 175 175 175 175 175 175	Query Match I
116 11 150 11 207 4 183 11 183 11 185 6 210 6 2271 14 232 1 418 13 326 11 358 1 144 13 148 13 188 13 188 13	Length DB
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TENASCIN-X.	CD4.2 PROTEIN.	HYPOTHETICAL 12.7 KD P	PUTATIVE TRANSCRIPTION	GLUTAMATE SYNTHASE (GL	RADICAL ACTIVATING PRO	FK506 POLYKETIDE SYNTH	SURFACE PROTEIN PRECUR	SURFACE PROTEIN.	SURFACE GLYCOPROTEIN S	KERATIN, HIGH-SULFUR M	KERATIN, HIGH-SULFUR M	CELL DIVISION CYCLE CO	F12F1.6.	W01F3.3.	YFJO PROTEIN.	F10D2.3 PROTEIN.	SIMILAR TO CUTICLE COL	ZC373.2.	L3162-112.	POLYPROTEIN.	EBNA1.	VASCULAR ENDOTHELIAL G	HYPOTHETICAL 51.5 KD P	PMGA, COMPLETE CDS.
1.19e+01	1.19e+01	1.19e+01	1.19e+01	8.13e+00	8.13e+00	5.54e+00	5.54e+00		5.54e+00	5.54e+00	5.54e+00	5.54e+00	5.54e+00	3.77e+00	2.55e+00	1.16e+00	1.16e+00	1.16e+00	7.75e-01	3.45e-01	3.45e-01	1.20e-02	3.27e-03	3.2/e-05

### ALIGNMENTS

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TISSUE-HEART;	EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; EUTHERIA; RODENTIA. [1]	OTHELIAL GROWTH	01-JUN-1998 (TREMBIREI, 06, LAST SEQUENCE UPDATE)	(TREMBLREL. 06,	O54881 PRELIMINARY; PRT; 150 AA.	2	69 PSCVTVQRCGGCCP 82	20 PSCVTVQRCGGCCP 33	Query Match 100.0%; Score 121; DB 11; Length 116; Best Local Similarity 100.0%; Pred. No. 1.08e-12; Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps	E 116 AA;	NON_TER 116 116	NON_TER 1 1	PFAM; PF00341; PDGF.	PROSITE; PS00249; PDGF; 1.		SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.	KAGUE DAWLEI;				OTA; METAZOA		DOTHELIAL GROWTH FACTO	(TREMBLREL. 06, LAST ANNOTATIO	05	01-JAN-1998 (TREMBLREL. 05, CREATED)		O35485 PRELIMINARY: PRT: 116 AA.	7 1

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ID Q1
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01-NOV-1996
01-NOV-1996
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WEBER G., HAYWARD N.K.;
BIOCHEM. BIOPHYS. RES. COMMUN. 220:922-
EMBL; U52820; G1488261; -
EMBL; U43836; G1314334; -
EMBL; U43836; G1314334; -
EMBL; U6199; VRF,
PROSITE; PS00249; PDGF; 1.
PFAM; PF00341; PDGF
SEQUENCE 207 AA; 21914 MW; 4FB6C405
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O64290;
O1-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
O1-NOV-1996 (TREMBLEEL. 01, LAST SEQUENCE UPDATE)
O1-JUN-1998 (TREMBLEEL. 06, LAST ANNOTATION UPDATE)
O1-JUN-1998 (TREMBLEL O6, LAST ANNOTATION UPDATE)
O1-GUILAR ENDOTHELIAL GROWTH FACTOR RELATED PROTEIN
ON COUNTY OF THE PROTEIN OF THE PROTEIN
                                                   01-JUN-1998
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OLOFSSON B.;
PROC. NATL. ACAD. S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 96325041.
OLOFSSON B., PAJUSOLA K., VON EULER GERIKSSON U.;
J., BIOL. CHEM. 271:19310-19317(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-WHOLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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(VASCULAR ENDOTHELIAL GROWTH F
VRF OR VEGF-B.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                          69
                                                                                                                                                                                                                                                                                              70 PSCVTVQRCGGCCP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-HEART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUTHERIA; RODENTIA.
     OR
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                    RELATED FACTOR
                                                                                                                                                                                                                                               PSCVTVQRCGGCCP
VEGF-B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PSCVTVQRCGGCCP 82
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Similarity 100.0%;
14; Conservative
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96183052.
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Similarity 100.0%;
14; Conservative
               5 (TREMBLREL. 01, 5 (TREMBLREL. 01, 3 (TREMBLREL. 06, ED FACTOR ISOFORM
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     , CREATED)
, LAST SEQUENCE UPDATE)
, LAST ANNOTATION UPDATE
M VRF186 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VON EULER G.,
                                                                                                                                                                                                                                                                                                                               Score 121; DB 11; pred. No. 1.08e-12; 0; Mismatches 0;
                                                                                                                                           PRT;
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Pred.
0; M
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93:2576-2581(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220:922-928(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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Query Match
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Q63740;
01-NOV-1996 (
01-NOV-1996 (
01-JUN-1998 (
PDGF PROTEIN
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                                                                                                   SUBMITTED (APR-1995) T
EMBL; L41623; G769680;
PROSITE; PS00249; PDGF
                                                                SEQUENCE
                                                                                        PFAM; PF00341; PDGF.
104 PPCVEVQRCSGCC
                                                                                                                              MOATS-STAATS B.M.,
                                                                                                                                                                            RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHOR
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PFAM; PF00341; F
SIGNAL.
                                                                                                                                          FISSUE-LUNG;
                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                       EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
TISSUE-FIBROSARCOMA H
MEDLINE; 96197355.
OLOFSSON B.;
                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; U43368; G1216396; --
EMBL; U52819; G1488259; --
PROSITE; PS00249; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 96325041.
OLOFSSON B., PAJUSOLA K., VON EULER G., ERIKSSON U.;
J. BIOL. CHEM. 271:19310-19317(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=FIBROSARCOMA HT-1080;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GRIMMOND S., LAGERCRANTZ J., E
POLLOCK P., GOTLEY D., CARSON
HAYWARD N., WEBER G.;
GENOME RES. 6:122-129(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROC. NATL. ACAD. SCI. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                          70 PSCVTVQRCGGCCP
                                                                                                                                                                                                                                                                                               69 PSCVTVQRCGGCCP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
EUTHERIA; PRIMATES.
[1]
                     Similarity 76.9%;
10; Conservative
                                                                                                                                                                                                                                                                                                                                  Similarity 100.0%;
Similarity 100.0%;
14; Conservative
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183
183 AA;
                                                                                                                                                                       RODENTIA.
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(TREMBLREL.
(TREMBLREL.
N (FRAGMENT).
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22
207 AA;
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20160 Þ
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                                                                                                  PDGF; 1.
    116
                                80.2%;
                                                                                                                 XU L., JARVIS W., STILES A.D.;
) TO EMBL/GENBANK/DDBJ DATA BANKS
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207
21602
                                                                                                                                                                            CHORDATA;
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                                                             MW;
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, LAST SEQUENCE UP
, LAST ANNOTATION (
                     Score 97; DB 11;
Pred. No. 1.38e-07;
2; Mismatches ]
                                                                                                                                                                                                                                                                                                                                 Pred.
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Pred. No. 1.08e-12;
                                                                                                                                                                           VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
VEGF RELATED FACTOR ISOFORM; 16BDF6F1 CRC32;
                                                          69908655 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DRINKWATER
N E., RAKAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93:2576-2581(1996)
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                                                                                                                                                                        TETRAPODA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SILINS G., TOWNSON S., NORDENSKJOLD M., WARD L.,
                                     Length 183;
                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                Length 207;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 D.,
                   Indels
                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                        MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALITALO
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                                                                                                                                                                                                                                                                                                                                                                            VRF186
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                 Gaps
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69

PSCVTVQRCGGCC

81

1)

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RESULT

O15354;
AC 015354;
DT 01-NOV-1996 (TREMBLREL 01, CREATED)
DT 01-NOV-1996 (TREMBLREL 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL 06, LAST ANNOTATION UPDATE)
DT 01-JUN-1998 (TREMBLEL 06, LAST ANNOTATION UPDATE)
DE C-SIS PROTO-ONCOGENE (FRAGMENT).
OS HOMO SAPIENS (HUMAN),
CEUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAM
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-CHORIOCARCINOMA;
RX MEDLINE; 95388493.
RA DIRKS R.P.H., ONNEKINK C., JANSEN H.J., DE JONG A., BLOE
RL NUCLEIC ACIDS RES. 23:2815-2822(1995).
DR EMBL; X83705; G951025; -.
DR PRAM; PRO0341; PDGF; 1.
DR PRAM; PRO0341; PDGF; 1.
DR PRAM; PRO0341; PDGF; 1.
SGUENCE 185 AA; 20774 MW; C5FAA883 CRC32;
                                                                                                                                                 RESULT OF SOLUTION OF SOLUTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
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   Query Match
Best Local s
Matches 1
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Best Local S
Matches 1
                                                                                                                                                                                                                 NUCLEIC ACIDS RES. 14.765-778(1986).

EMBL; X06299; E222210; JOINED.

EMBL; X06299; E222210; JOINED.

EMBL; X06299; E222210; JOINED.

EMBL; X06300; E222210; JOINED.

EMBL; X06300; E222210; JOINED.

EMBL; X06301; E222210; JOINED.

EMBL; X06302; E222210; JOINED.

EMBL; X03494; G1110; -

EMBL; X03494; G110; -

EMBL; X06302; EXCAN, XIII; XIII; XIII; X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q29613 PRELIMINARY: PRT; 210 AA.
Q29613;
Q1-9613;
Q1-NOV-1996 (TREMBLREL 01, CREATED)
Q1-NOV-1996 (TREMBLREL 01, LAST SEQUENCE UPDATE)
Q1-JUN-1998 (TREMBLREL 06, LAST ANNOTATION UPDATE)
C-SIS ONCOGENE (PLATELET-DERIVED GROWTH FACTOR).
FELIS SILVESTRIS CATUS (CAT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE: 86120370.

VAN DEN OUWELAND A.M.W., ROEBROEK A.J.M.
CLAESEN C.A.A., BLOEMERS H.P.J., VAN DE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE; 87146463.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 1-21 I
MEDLINE; 86120370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUTHERIA; CARNIVORA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        107 PPCVEVQRCSGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEN OUWELAND A.M.W., VAN GRONINGEN NECK H.W., BLOEMERS P.J., VAN DE VILEIC ACIDS RES. 15:959-970(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PSCVTVQRCGGCC
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Similarity 76.9%;
10; Conservation
h 80.2%;
Similarity 76.9%;
10; Conservative
                                                                                                                                                         210
                                                                                                                                                     PDGF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                119
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                                                                                                                                                         23649
                                                                                                                                                         MΨ.
Score 97; DB 6; I
Pred. No. 1.38e-07;
2; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 97; I
Pred. No. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                         1579ED72 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VEN W.J.M.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VEN W.J.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .38e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 185
                                                                          Length
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       Indels
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                                                                              210;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
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   Gaps
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   0;
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                                                               RESULT
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Best Local S
Matches 1
                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                              Query Match
Best Local
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EUKARYOTA; METAZON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE; 83144004.
DEVARE S.G., REDDY P.E., LAW J.
PROC. NATL. ACAD. SCI. U.S.A. 8
EMBL; J02394; G332621; -.
PROSITE; PS00249; PDGF; 1.
PFAM; PF00341; PDGF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOL. ENDOCRINOL. 5:1806-1814(1
EMBL; 885192; 6246156; -.
EMBL; 885224; E91787; JOINED.
EMBL; 885199; E91787; JOINED.
EMBL; 885219; E91787; JOINED.
EMBL; 885219; E91787; JOINED.
EMBL; 885222; E91787; JOINED.
JLT 10
057352
057352;
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041283;
041283;
01-JAN-1998
01-JAN-1998
01-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEO
01-JUN-1998 (TREMBLREL. 06, LAST ANN
POLYPROTEIN PRECURSOR ENV-SIS.
SIMIAN SARCOMA VIRUS.
VIRIDAE: SS-RNA ENVELOPED VIRUSES; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE; 92168017.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HOUCK K.A., FERRARA N., WINER J., C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POLYPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ONCOVIRINAE
                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                           PFAM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           152 PPCVEVQRCSGCC
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                                                                                                                                                                                            PSCVPLMRCGGCC
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                                                                                                                                                     PSCVTVQRCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                        PF00341;
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10; Conser
                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                  10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PS00249;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              271 AA;
                                                                                                                                                                                                                                                                                                                                                                                                           232 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
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                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           PDGF; 1.
                                                                                                                                                                                                                                                                                                              76.9%;
76.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30328 MW;
                                                                                                                                                                                                                                                                                                                                                                                                        27042 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , CREATED)
, LAST SEQUENCE UPI
, LAST ANNOTATION U
                                                                                                                                                                                                                                                                           Score 93; DB 4;
Pred. No. 9.15e-07
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 97; DB 14; L
Pred. No. 1.38e-07;
2; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    J.D., ROBBINS K.C.,
80:731-735(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                        344182D1 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17F778D3 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE UPDATE)
ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACHIANES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POSITIVE-STRAND;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               232
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                                                 O35251 PRELIMINARY;
O35251; PRELIMINARY;
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O1-JAN-1998 (TREMBLREL 05, C
O1-AUG-1998 (TREMBLREL 07, L
O1-AUG-1998 (TREMBLREL 07, L
VASCULAR ENDOTHELIAL GROWTH F
VECE-D.
                                                                                                                                                                                                                                                                                                                                                                                                                            SKORJANC D., JASCHINSKI F.,
AM. J. PHYSIOL. 274:0-0(1998)
EMBL; AFG22179; G2465453; -
PROSITE; PS00249; PDGF; 1.
PFAM; PE00341; PDGF.
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O18843;
O1-JAN-1998
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01-JUN-1998 (TREMBLREL.
01-AUG-1998 (TREMBLREL.
VASCULAR ENDOTHELIAL GRO
 EUTHERIA;
                RATTUS NORVEGICUS EUKARYOTA; METAZOA
                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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STRAIN-WHITE NEW ZEALAND;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
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ALITALO K., LE DOUARIN N.M.;
DEVELOPMENT 125:743-752(1998).
EMBL, Y15837; E1215492;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GALLIFORMES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COTURNIX COTURNIX EUKARYOTA; METAZOA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUTHERIA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00249; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VEGF-C
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Similarity 69.2%;
9; Conservative
                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                           10;
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   RODENTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S CUNICULUS (RABBIT).
METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         418
                    METAZOA;
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                                                                                                                                                                                                                                                                                                                                                                            75 AA;
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larity 76.9%;
Conservative
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46839 1
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a; CHORDATA; VERTEBRATA; TETRAPODA;
                                    (RAT)
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8720 MW;
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                    CHORDATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F., HE:
)(1998).
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05, LAST SEQUENCE UPDATE)
07, LAST ANNOTATION UPDATE)
OWTH FACTOR (FRAGMENT).
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                                                                      CREATED)
LAST SEQUENCE UPI
LAST ANNOTATION (
FACTOR D.
                                                                                                                                                                                                                                                                                                    Score 91; DB 6; Le
Pred. No. 2.34e-06;
1; Mismatches 2;
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LAST ANNOTATION UPDATE)
FACTOR C PRECURSOR.
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Pred. No. 1.
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B7862854 CRC32;
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                    VERTEBRATA;
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                    TETRAPODA;
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                  MAMMALIA;
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SEQUENCE FROM N.A.
STRAIN-SPRAGUE DAWLEY;
MEDLINE; 97349118.
A YAMADA Y., NEZU J., SHIMANE M.,
A GENOMICS 42:483-488(1997).
DE EMBL; AF014827; G2323339; -..
DR PROSITE; PS00341; PDGF; 1.
DR PEAM; PF00341; PDGF.
DR PFAM; PF00341; PDGF.
CCCT STAIL AND SCCT ST
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Best Local S
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                   ACHEN M.G., JELTSCH M., KUKK E., ACHEN M.G., JELTSCH M., KUKK E., ALTTALO K., STACKER S.A.;

PROC. NATL. ACAD. SCI. U.S.A. 9:
EMBL, Y12864; E1252772; JOINED.
EMBL; Y12865; E1252772; JOINED.
EMBL; Y12866; E1252772; JOINED.
EMBL; Y12867; E12522772; JOINED.
EMBL; Y12868; E12522772; JOINED.
EMBL; Y12869; E12522772; JOINED.
EMBL; Y12870; E12522772; JOINED.
EMBL; Y12870; E12522772; JOINED.
EMBL; Y12870; E12522772; JOINED.
EMBL; Y12870; E12522773; JOINED.
EMBL; Y12870; E12522775; JOINED.
EMBL; Y12870; E12522770; JOINED.
JLT 14
P97946
P97946;
O1-MAY-1997
O1-MAY-1997
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; C
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-1998
01-JUN-1998
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ROCCHIGIANI M., LESTINGI M., LUI

ROSSI E., BALLABIO A., ZUFFARDI

GENOMICS 47:207-216(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           139
                                                                                                                                                                                                                                                           134 PPCVNVFRCGGCC
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                                                                                                                                                                                                      69 PSCVTVQRCGGCC
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Similarity 76.9%;
10; Conservative
                                                                                                                                                                                                                                                                                                                Similarity 76.9% 10; Conservative
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(TREMBLREL.)
     (TREMBLREL.
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76.9%;
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     CREATED)
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LAST SEQ
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Pred. No. 2.34e-06
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95:548-553(1998)
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                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                               310D8150 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MAEKINEN T., VITALI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE UPDATE)
ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                No. 2.34e-06;
Mismatches 2;
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, OLIVIERO S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     354
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                                                                                                                                                                                                                                                                                                                  ?
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WILKS
                                                                                                                                                                                                                                                                                                                0;
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SEQUENCE UPDATE)

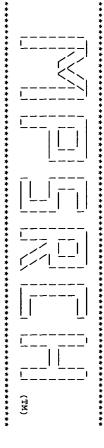
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RESULT 15
10 070123; PRELIMINARY; PRT; 141 AA.
AC 070123; PRELIMINARY; PRT; PREMICE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE VEGF115
OS MUS MUSCULUS (MOUSE).
CE EUKHARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MA
CC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
STRAIN-ICR;
RX MEDLINE; 95101726.
RN [2]
RP SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN-ICR;
RX MEDLINE; 98112857.
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                                                                                                      В
                                                                                                                                                                                                   Query Match 71.9%;
Best Local Similarity 69.2%;
Matches 9; Conservative
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Best Local Similarity 76.9%;
Matches 10; Conservative
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GENOMICS 42:483-488(1997).
EMBL; X99572; EZ83242;
EMBL; D89528; D1014701; -.
EMBL; D89628; D1014701; -.
MGD; MGI:108037; FIGF
PROSITE; PS00249; PDGF; 1.
PFAM; PF00341; PDGF;
SEQUENCE 358 AA; 40908 MW; 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; RODENTIA.
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ORDANDINI M., MARCONCINI L., FERRUZZI R., OLIVIERO S.;
PROC. NATL. ACAD. SCI. U.S.A. 93:11675-11675(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VEGF-D OR FIGF.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-LUNG;
MEDLINE; 97349118.
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VASCULAR ENDOTHELIAL GROWTH FACTOR D (C-FOS INDUCED GROWTH FACTOR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EQUENCE FROM N.A.
74 PSCVPLMRCAGCC 86
|||| : ||:|||
69 PSCVTVQRCGGCC 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             69 PSCYTYQRCGGCC 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 91; DB 11; Length 358; Pred. No. 2.34e-06;
                                                                                                                                                                                                                                                 Score 87; DB 11; Length 141; Pred. No. 1.49e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Mismatches
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                                                                                                                                                                                                        Mismatches
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Search completed: Thu Job time: 52 secs.

Nov 26

00:02:49 1998

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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

Run on: MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Thu Nov 26 00:01:31 1998; MasPar time 2.31 Seconds 151.826 Million cell updates/sec

Tabular output not generated.

Description: Perfect Score: Sequence: Title: >US-09-033-662-2 (69-82) from US09033662.pep 1 PSCVTVQRCGGCCP 14

Scoring table: PAM 150 Gap 11

Searched: 69111 seqs, 25083644 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

Database: swiss-prot35 1:swiss1

Statistics: Mean 24.744; Variance 39.426; scale 0.628

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

22221131111 2222216654321 32222166754321	Result No.
121 121 97 97 97 98 88 88 88 88 88 88 88	Score
100.0 80.2 80.2 80.2 80.2 80.2 71.5 76.9 76.9 77.7 72.7 72.7 71.9	Query Match
188 1285 2225 2241 241 241 148 148 190 190 2015 2015 2015 2015 2015 2015 2015 201	Length
	BB
VEGB_MOUSE POGB_RAT TSIS_SMSAV POGB_SHEEP POGB_HUMAN POGB_HOUSE POGB_FELCA VEGH_ORFN7 VEGC_HUMAN VEGF_HUMAN VEGF_HUMAN POGA_RAT POGA_RAT POGA_RABIT POGA_RABIT POGA_RAT	ID
VASCULAR ENDOTHELIAL G PLATELET-DERIVED GROWT PDGF-RELATED TRANSFORM PLATELET-DERIVED GROWT VASCULAR ENDOTHELIAL G PLATELET-DERIVED GROWT	Description
5.15e-13 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08 7.65e-08	Pred. No.

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70 PSCYTYQRCGGCCP 83

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45.5	45.5	45.5	46.3	46.3	46.3	46.3	46.3	47.1	47.1	47.1	47.1	47.1	47.1	47.9	50.4	51.2	52.1	69.4	71.1	71.9
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UNC8_CAEEL	Y264_METJA	PSAC_SYNY3	. EHO1_HUMAN	P2UR_HUMAN	P2UR_RAT	P2UR_MOUSE	MCS_MOUSE	VGL2_CVBLY	VGL2_CVBF	VGL2_CVHOC	K1M2_SHEEP	FERX_ACICA	CHA1_ANTPO	DCMA_METSO	YGCA_HAEIN	CHHC_BOMMO	CHHB_BOMMO	PLGF_MOUSE	PLGF_HUMAN	VEGF_MOUSE
DEGENERIN UNC-8.	HYPOTHETICAL PROTEIN M	PHOTOSYSTEM I IRON-SUL	EPILEPSY HOLOPROSENCEP	P2U PURINOCEPTOR 1 (AT	PURINOCEPTOR 1 (	P2U PURINOCEPTOR 1 (AT	SPERM MITOCHONDRIAL CA	E2 GLYCOPROTEIN PRECUR	E2 GLYCOPROTEIN PRECUR	E2 GLYCOPROTEIN PRECUR	KERATIN, TYPE I MICROF	PUTATIVE FERREDOXIN.	CHORION CLASS A PROTEI	CARBON MONOXIDE DEHYDR	HYPOTHETICAL RNA METHY	CHORION CLASS HIGH-CYS	CHORION CLASS HIGH-CYS	PLACENTA GROWTH FACTOR	PLACENTA GROWTH FACTOR	VASCULAR ENDOTHELIAL G
7.24e+00	7.24e+00	7.24e+00	4.97e+00	4.97e+00	4.97e+00	4.97e+00	4.97e+00	3.39e+00	3.39e+00	3.39e+00		3.39e+00	3.39e+00	2.31e+00		4.76e-01		3.46e-05	1.38e-05	8.67e-06

#### ALIGNMENTS

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Query Match 100.0%; Score 121; DB 1; Length 188; Best Local Similarity 100.0%; Pred. No. 5.15e-13; Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	PROSITE; PS00249; pDGF; 1.  MITOGEN; GROWTH FACTOR; SIGNAL; HEPARIN-BINDING.  SIGNAL 1 21 POTENTIAL.  CHAIN 22 188 VASCULAR ENDOTHELIAL GROWTH FACTOR B.  SEQUENCE 188 AA; 21261 MW; 35EA8904 CRC32;	-I- SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS OR -I- SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS OR -IO THE EXTRACELLULAR MATRIX UNLESS RELEASED BY HEPARINI- TISSUE SPECIFICITY: EXPRESSED IN ALL TISSUES EXCEPT LIVERI- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS. EMBL; U48801; G1234823; EMBL; U43369; G1216398; EMBL; U43369; G1216398;	GRIMMOND S., LAGERCRANTZ J., DRINKWAYER C., SILINS G., TOWNSON S., POLLOCK P., GOTLEY D., CARSON E., RAKAR S., NORDENSKJOLD M., WARD L., HAYWARD N., WEBER G.; GENOME RES. 6:122-129(1996)	FROM N.A. 96197355. B., PAJUSOLA K., KAIPAINEN A., VON EULER G., JOUKOV V. D., ORPANA A., PETTERSSON R.P., ALITALO K., ERIKSSON U. II. ACAD. SCI. U.S.A. 93:2576-2581(1996).	TOR), FB OR VRF. O SAPIENS (HUMAN). ARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRA HERIA; PRIMATES.	ILT 1 YEGB_HUMAN STANDARD; PRT; 188 AA. P49765; 01-OCT-1996 (REL. 34, CREATED) 01-OCT-1996 (REL. 34, LAST ANOTATION UPDATE) 01-NOV-1997 (REL. 35, LAST ANOTATION UPDATE) VASCULAR ENDOTHELIAL GROWTH FACTOR B PRECURSOR (VEGF-B) (VEGF RELATION)

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69

PSCVTVQRCGGCCP

82

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Best Local S
Matches 1
SEQUENCE FR
MEDLINE; 93
HERREN B.,
BIOCHIM. BI
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TOWNSON S., LACERCRANTZ J., GRIMMOND S., SILINS G TOWNSON S., LACERCRANTZ J., GRIMMOND S., SILINS G NORDENSKJOLD M., WEBER G., HAYWARD N.K.;
BIOCHEM. BIOPHYS. RES. COMMUN. 220:922-928(1996).
-!- FUNCTION: GROWTH FACTOR FOR ENDOTHELIAL CELLS
-!- SUBUNIT: HOMODIMER, DISULFIDE-LINKED. CAN ALS
                                                                                                                     01-FEB-1994 (REL. 28, CR
01-FEB-1994 (REL. 28, LA
01-OCT-1996 (REL. 34, LA
PLATELET-DERIVED GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VEGB_MOUSE STANDARD; PRT; 188 AA. P99766; P99766; O1-OCT-1996 (REL. 34, CREATED) O1-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE) O1-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE) VASCULAR ENDOTHELIAL GROWTH FACTOR B PRECURSOR (VIENDOTHELIAL GROWTH FACTOR RELATED PROTEIN) (VRF).
                                                                 EUTHERIA;
                                                                          RATTUS NORVEGICUS (RAT) EUKARYOTA; METAZOA; CHC
                                                                                                                                                                                                                                                                                                                                                                                                         TO THE EXTRACELLULAR MATRIX UNLESS
-!- TISSUE SPECIFICITY: ABUNDANTLY FYEN
                                                                                                  PDGFB
                                                                                                                                                                  Q05028;
                                                                                                                                                                           PDGB_RAT
                                                                                                           (PDGF-2) (FRAGMENT).
                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                          MITOGEN;
                                                                                                                                                                                                                                                                                                                                                                 MGD;
                                                                                                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OLOFSSON B., PAJUSOLA K.,
SAKSELA O., ORPANA A., PET
PROC. NATL. ACAD. SCI. U.S
                                                                                                                                                                                                                                                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-HEART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VEGFB OR VRF.
                                                                                                                                                                                                                       69
                                                                                                                                                                                                                                           70
                                                                                                                                                                                                                                                                                                                                                                         AND SKELETAL MUSCLE.
SIMILARITY: BELONGS TO
L; U48800; G1234825; -.
L; U43837; G1314336; -.
                                                                                                                                                                                                                                                                                                                                         MGI:106199; VRF.
ITE; PS00249; PDGF;
GEN; GROWTH FACTOR;
                                                                                                                                                                                                                      PSCVTVQRCGGCCP
                                                                                                                                                                                                                                           PSCVTVQRCGGCCP
          B., WEYER K.A.,
B. BIOPHYS. ACTA
                                                                                                                                                                                                                                                                           Similarity
                                           FROM N.A.
                                                                 RODENTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96197355.
                                                                                                                                                                                                                                                                                                           188
                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                           AA;
                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                         188
21442
                                                                          CHORDATA;
                                                                                                                                                                                                                      82
                                                                                                                                                                                                                                           83
                                                                                                                 CREATED)

LAST SEQUENCE UPDATE)

LAST ANNOTATION UPDATE)

FACTOR, B CHAIN PRECURSOR (PDGF
          ROUGE M., LOETSCHER 1173:294-302(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            K., KAIPAINEN A., VON EULER G. PETTERSSON R.F., ALITALO K., U.S.A. 93:2576-2581(1996).
                                                                                                                                                                                                                                                                                                                                         SIGNAL;
                                                                                                                                                                                                                                                                                                         MW;
                                                                                                                                                                                                                                                                                                                                                                                                THE
                                                                                                                                                                                                                                                             Score 121; DB 1; L
Pred. No. 5.15e-13;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                         VASCULAR ENDOTHELIAL 7999A3C8 CRC32;
                                                                         VERTEBRATA;
                                                                                                                                                                                                                                                                                                                               POTENTIAL
                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                              PDGF/VEGF
                                                                                                                                                                                                                                                                                                                                         HEPARIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                    EXPRESSED
                                                                                                                                                                           225
                                                                                                                                                                                                                                                                                                                                                                                                                  REMAINS ASSOCIATED TO CELLS OR RELEASED BY HEPARIN.
RESSED IN HEART, BRAIN, KIDNEY
                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                             FAMILY OF
                                                                         TETRAPODA; MAMMALIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAN ALSO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CELLS.
                     PECH
                                                                                                                                                                                                                                                                                   Length 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (VEGF-B) (VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                o.
ز
                                                                                                                                                                                                                                                                                                                    GROWTH
                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                             BINDS
FORM F
                                                                                                                                                                                                                                                                                                                                                                                              GROWTH FACTORS
                     ⊠
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ERIKSSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MAMMALIA;
                                                                                                                    B-CHAIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             S HEPARIN.
HETERODIMER
                                                                                                                                                                                                                                                                                                                    FACTOR
                                                                                                                                                                                                                                                              0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROC. NATL ACAD.

-i- SIMILARITY: BELONGS TO THE PDGE
EMBL; V01201; G61777; ALT_INIT.
PIR; A01381; TVMVSS.

{ HSSP; P01127; 1PDG.

R PROSITE; PS00249; PDGF; 1.

R PROSITE; PS00249; PDGF; 1.

R TRANSFORMING PROTEIN; ONCOGENE; GI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-JUL-1986
21-JUL-1986
01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SITE
SITE
DISULFID
DISULFID
DISULFID
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DISULFID
CARBOHYD
NON_TER
SEQUENCE
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NON_TER
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TSIS_SM
P01128;
                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE; 83144004.
DEVARE S.G., REDDY E.P.,
PROC. NATL. ACAD. SCI. U.
                                                                                                                                                                                                                                                                                                                                                          SIMIAN SARCOMA VIRUS VIRIDAE; SS-RNA ENVE
                                                                                                                                                                                                                                                                                                                                                                                                                                          PDGF-RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROPEP
CHAIN
PROPEP
                                                                                                                                                                                                                                                                                                                                       ONCOVIRINAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LINDNER V., GIACHELLI C.M., CIRC. RES. 76:951-957(1995)
-!- FUNCTION: PLATELET-DERI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 74-182 FROM N.A.
STRAIN-SPRAGUE-DAWLEY; TISSUE-SMOOTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         114 PPCVEVQRCSGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; S25097; S25097.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 95277908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE SPECIFICITY: EXPRESSED IN A DISTINCT SUBP
OF SMOOTH MUSCLE CELLS IN INJURED ARTERIES.
A-A AND B-B, AS WELL AS A-B, DIMERS CAN BIND TO
SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND. MAY HAVE A CHEMOTACTIC ROLE INTIMAL THEKENING.

MAY HAVE A CHEMOTACTIC ROLE INTIMAL THEKENING.

SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF MONIDENTICAL (A SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER DIMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PSCVTVQRCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSFORMATION PROCESSES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMSAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Z14117; G56868;
L40991; G727178;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P01127; 1PDG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 76.9%, 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                     6 (REL. 01, CREATED)
6 (REL. 01, LAST SEQU
6 (REL. 34, LAST ANNO
ED TRANSFORMING PROTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13
13
14
183
100
103
122
126
116
116
125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9; PDGF; FACTOR;
                                                                                                                                                                                                                                                                                                                                                               ENVELOPED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
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12
182
182
100
103
133
170
172
1176
1255
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25603
                                                                                                                                                                   , LAW J.D., ROBBINS K.C., AARONSON U.S.A. 80:731-735(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTO-ONCOGENE;
                                                                                                                                                                                                                                                                                                                                                                                                                                     ST SEQUENCE UP
ST ANNOTATION
S PROTEIN P28-
                                                                                                                                                                                                                                                                                                                                                            VIRUSES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ¥;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INVOLVED IN RECEPTOR BINDING.
INVOLVED IN RECEPTOR BINDING.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
INTERCHAIN (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 97;
Pred. No. 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
BY SIMILARITY.
PLATELET-DERIVED OBY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCHWARTZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INTERCHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                  GROWTH FACTOR.
DD3C74C1 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CC1B043F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                       POSITIVE-STRAND; RETROVIRIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                     ON UPDATE)
28-SIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MUSCLE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1; I
7.65e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PLATELET;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REIDY M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY).
SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 225;
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                                                                                                                                                                         OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBPOPULATON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      THE PDGF RECEPTOR
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Query Match Best Local : Matches

Similarity 10; Conser

Conservative

80 76

.98;

Score 97; DB 1; 1 Pred. No. 7.65e-08; 2; Mismatches 1

Length 226;

Indels

<u>..</u>

Gaps

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REPUBLIC OF CONTROL OF
RESULT
ACC PUT
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DT 2
DT 2
OCC P P
OCC P P
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                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

STRAIN-TEXEE]; TISSUE-SPLEEN;

WOODALL C.J., ZHANG Z., WATT N.J.;

WOODALL C.J., ZHANG Z., WATT N.J.;

SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.

-!- FUNCTION: PLATELET DERIVED GROWTH FACTOR TO ITS GELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STINGLATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.

-!- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF MONIDENTICAL (A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1997 (REL. 3
01-NOV-1997 (REL. 3
01-NOV-1997 (REL. 3
PLATELET-DERIVED GI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LT 5
PDGB_SHEEP
Q95229;
                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OVIS ARIES EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1997
01-NOV-1997
01-NOV-1997
                                   P01177:
21-JUL-1986 (REL. 01, CREATED)
21-JUL-1986 (REL. 01, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
PDATFLET-DERIVED GROWTH FACTOR, B CHAIN PRECURSOR (PDGF-2) (BACAPLERMIN).
PDGFB OR C-SIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROPER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MITOGEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PDGFB
                                                                                                                                                                        PDGB_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                                                                                                                                                                                                                                                      122 PPCVEVQRCSGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         69
                                                                                                                                                                                                                                                   69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS TO THE PDGF/VEGF
L; X97123; E242905; -.
SITE; PS00249; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A-A AND B-B, AS WELL AS A-B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TRANSFORMATION PROCESSES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PPCVEVQRCSGCC
SAPIENS (HUMAN).
RYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                   PSCVTVQRCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PSCVTVQRCGGCC
                                                                                                                                                                                                                                                                                                                                                Similarity
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BY SIMILARITY.
BY SIMILARITY.
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Pred. No. 7.65e-08
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6DFB70E0 CRC32;
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BY SIMILARITY.
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BY SIMILARITY.
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   VERTEBRATA;
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SIMILARITY).
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MEDLINE; 93010987.

OEFNER C., D'ARCY A., WINKLER F
EMBO J. 11.3921-3926(1992).

-!- FUNCTION: PLATELET-DERIVED
                                                   ANDERSSON M., OESTMAN A., BAECKTROEM G., GEORGE-NASCIMENTO C., WESTERMARK B., HEL J. BIOL. CHEM. 267:11260-11266(1992).
                                                                                                                CRAIG S., DRUMMOND A.H., EDWARDS R.M., F HELLEWELL P.G., KIRWIN P.M., NAYEE P.D., CHAHWALA S.B., SNAREY M., WINSLOW D.;
                                                                                                                                                                                                                                 MEDLINE; 83197379.
ANTONIADES H.N., HUNKAPILL SCIENCE 220:963-965(1983).
                                                                                                                                                                                                                                                                           SEQUENCE OF 26-241 FROM N.A.
MEDLINE; 86164981.
WEICH H.A., SEBALD W., SCHAIRER
FEBS LETT. 198:344-348(1986).
                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE; 87217119. RAO C.D., IGARASHI
                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE; 85269623. RATNER L., JOSEPHS
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE; 85296313.
COLLINS T., GINSBURG D.,
NATURE 316:748-750(1985)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 84;
CHIU I.-M.,
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JOSEPHS S.F., RATNER L.,
WONG-STAAL F.;
                                                                                                                                          MEDLINE; 92097530.
CLEMENTS J.M., BAWDEN L.J.,
                                                                                                                                                                                     WASTESON A., WESTERMARK
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                                                                                                                                                                                                                                                                                                                                                            COLD SPRING
                                                                                                                                                                                                                                                                                                                                                                                                       RATNER L., JOS
NUCLEIC ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CELL 37:123-129(1984).
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                                                                                                                                                            MUTAGENESIS,
                                                                                                                                                                              NATURE 304:35-39(1983).
                                                                                                                                                                                                        MEDLINE;
                                                                            INTERCHAIN DISULFIDE MEDLINE; 92283833.
                                    -RAY CRYSTALLOGRAPHY
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13:5007-5018(1985)
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                  WINKLER F.K.,
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B., H
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DL. 51:959-966(1986).
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FALLON A., GR
D., RICHARDSON
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                  HOSANG
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 POTENT MITOGEN
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UEL T.F.;
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EMBL: K01918; G338209; JOINED.
EMBL: K01918; G338209; JOINED.
EMBL: K01398; G338209; JOINED.
EMBL: K01399; G338209; JOINED.
EMBL: K01400; G338209; JOINED.
EMBL: X02741; G338272;
EMBL: X02744; G30247; -...
EMBL: K01917; G338199; JOINED.
EMBL: K01918; G338199; JOINED.
PDGB_MOUSE
P31240;
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PROPEP
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MITOGEN; GROWTH FI
3D-STRUCTURE.
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PDB; 1PDG; 31-JAN-94.
MIM; 190040; -.
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SIMILARITY: BELONGS TO THE PDGF/YEGF FAMILY OF GROWTH
DATABASE: NAME=R&D Systems' cytokine source book;
WWW-"http://www.rndsystems.com/cyt_cat/pdgf.html".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND. SUBUNIT: ANTI-PARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOWODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.
                                                                PPCVEVQRCSGCC
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larity 76.9%;
Conservative
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         STANDARD;
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PROTO-ONCOGENE; PLATELET;
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                                                                                  Score 97; DB 1; 1
Pred. No. 7.65e-08;
2; Mismatches
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INTERCHAIN.
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T -> E (IN
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         PRT;
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RECEPTOR
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Best Local S
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EMBL; M84448; G342573; JOINED.
EMBL; M84449; G342573; JOINED.
EMBL; M84450; G342573; JOINED.
EMBL; M84450; G342573; JOINED.
EMBL; M84451; G342573; JOINED.
EMBL; M84452; G342573; JOINED.
EMBL; M64849; G192820; JOINED.
EMBL; M64844; G192820; JOINED.
EMBL; M64846; G192820; JOINED.
EMBL; M64846; G192820; JOINED.
EMBL; M64847; G192820; JOINED.
EMBL; M64848; G192820; JOINED.
EMBL; M64848; G192820; JOINED.
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(PDGF-2).
PDGFB OR C-SIS.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHO
EUTHERIA; RODENTIA.
                                                                                                                                                                                        PDGB_FELCA
P12919;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SITE
DISULFID
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MGD; MGI:97528;
PROSITE; PS00249
                                                           01-OCT-1989 (REL. 12, CR
01-OCT-1989 (REL. 12, LA
01-NOV-1997 (REL. 35, LA
PLATELET-DERIVED GROWTH
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(PDGFB) (PDGF-2).
PDGFB OR C-SIS.
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MEDLINE;
BONTHRON
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-!- A-A AND B-B, AS WELL AS F
-!- SIMILARITY: BELONGS TO TH
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01-JUL-1993 (REL.
01-OCT-1996 (REL.
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GROWTH FACTOR;
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. 26, LAST SEQUENCE UPDATE;
. 34, LAST ANNOTATION UPDATE)
GROWTH FACTOR, B CHAIN PRECURSOR (PDGF B-CHAIN)
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                                                              FACTOR, B CHAIN PRECURSOR (PDGF B-CHAIN)
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PROTO-ONCOGENE; PLATELET;
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Pred. No. 7.
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BY SIMILARITY.
PLATELET-DERIVED (
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INTERCHAIN (BY SIMILARITY)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;;
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Best Local (
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01-OCT-1996 (REL. 34, CREALED,
01-OCT-1996 (REL. 34, LAST SEQ,
01-OCT-1996 (REL. 34, LAST ANY
VASCULAR ENDOTHELIAL GROWTH F?
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VAN DEN OUWELAND A.M.W., VAN GRONINGEN VAN NECK H.W., BLOEMERS H.P.J., VAN DE NUCLEIC ACIDS RES. 15:959-970(1987).
  CHAIN
DISULFID
                                                                   PROSITE;
                                                                                                                                                                                                         MEDLINE; 9
LYTTLE D.J
J. VIROL.
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EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; CARNIVORA.
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VAN DEN OUWELAND A.M.
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                                                                                                                   EMBL;
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                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE: 94076465.
LYTTLE D.J., FRASER K.M.,
J. VIROL. 68:84-92(1994).
                                                                                                                                                                                                                                                                                                                        VIRIDAE; DS-DNA
PARAPOXVIRUSES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          126 PPCVEVQRCSGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69
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#ITTED (NOV-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.

#UNCTION: PLATELET-PERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.

SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A CHARLEL CONTINUED OF A AND B CHAINS ARE IMPLICATED IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED TRANSFORMATION PROCESSES.
A-A AND B-B, AS WELL AS A-B, DIMERS CAN BIND TO THE PDGF RESIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTOL; X05112: E281569; ALT_SEQ.
                                                                                                                                 FUNCTION: INDUCES ENDOTHELIAL PROLIFERATION.
SUBUNIT: HOMODIMER, DISULFIDE-LINKED (BY SIMILARITY)
SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A26402; TVCTSS.
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GROWIH
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                                                                     FACTOR;
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LAST SEQUENCE UPDATE)

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GROWTH FACTOR HOMOLOG PR
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GLYCOPROTEIN;
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BY SIMILARITY.
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BY SIMILARITY.
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INTERCHAIN (BY SIMILARITY).
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                                                                     SIGNAL
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7.65e-08;
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MEDLINE: 94076465.

LYTTLE D.J., FRASER K.M., FLEMING S.B., MERCER A J. VIROL. 68:84-92(1994).

J. VIROL. 68:84-92(1994).

TOTAL TOTAL INDUCES ENDOTHELIAL PROLIFERATION.

TOTAL TOTAL OF THE PROLIFE AND THE 
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P52585;
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ORF VIRUS (STRAIN NZ7)
VIRIDAE; DS-DNA ENVELO
                                                                                                                                                                                                                                                                01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
VASCULAR ENDOTHELIAL GROWTH FACTOR C PRECURSO
ENDOTHELIAL GROWTH FACTOR RELATED PROTEIN) (V
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SEQUENCE FROM N.A., AND MEDLINE; 96178224.
JOUKOV V., PAJUSOLA K.,
                                                                                                                                HOMO SAPIENS (HUMAN),
EUKARYOTA; METAZOA; C
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PARAPOXVIRUSES.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBUNIT: HOMODIMER, DISULFIDE-LINKED SIMILARITY: BELONGS TO THE PDGF/VEGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10
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PE; PS00249; PDGF
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Similarity 76.9%;
10; Conservative
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10; Conser
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996 (REL. 34, LAST SEQUENCE UPDATE)
996 (REL. 34, LAST ANNOTATION UPDATE)
996 (REL. 34, LAST ANNOTATION OPACURSOR
ENDOTHELIAL GROWTH FACTOR HOMOLOG PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GROWTH
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          KAIPAINEN
                                                                     SEQUENCE
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POTENTIAL.

VASCULAR ENDOTHELIAL GROWTH F
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BY SIMILARITY.
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INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
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POTENTIAL.

M; E58453C5 CRC32;
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2; 1
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INTERCHAIN (BY
POTENTIAL.
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Pred. No. 2.00e-07;
1; Mismatches 2;
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No. 2.00e-07
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PROTEIN) (VRI
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          CHILOV
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FAMILY OF GROWTH FACTORS.
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                                                                                                                                                                      TETRAPODA;
                                                                                                                                                                                                                                                                   (VRP)
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                                                                                                                                                                                                                                                                   (VEGF-C) (VASCULAR
P) (FLT4 LIGAND).
          LAHTINEN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ROBINSON A.J.;
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Best Local S
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P50412;
01-OCT-1996 (REL. 34, C
01-OCT-1996 (REL. 34, I
01-NOV-1997 (REL. 35, I
VASCULAR ENDOTHELIAL GE
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CARBOHYD
CARBOHYD
SEQUENCE
                                            MEDLINE: 97117958.

REDMER D.A., DAI Y., LI
REYNOLDS L.P., MOOR R.M.
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PROSITE;
MITOGEN;
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MEDLINE; 96203094:
JOUKOV V., PAJUSOLA K., KAIPAINEN.
KUKK E., SAKSELA O., KALKKINEN N.,
EMBO J. 15:1751-1751(1996).
                     <u>.</u> .
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LEE J., GRAY A., Y
SUBMITTED (JAN-199
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EMBO
                                                                                                                                                                           EUKARYOTA;
                                                                                                                                                                                                                              PERMEABILITY
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                                                                                                       TISSUE-KIDNEY;
                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                          EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROPEP
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- PTM: PROBABLY PROTEOLIT:
- SIMILARITY: BELONGS TO:
BBL; X94216; E221096; -.
BBL; U43142; G1150989; -.
BBL; U58111; G1373427; -.
OSITE; PS00249; PDGF; 1.
REPROD. FERTIL. 108:157-165(1996).
- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS, CELL GROWTH. INDUCES ENDOTHELIAL PROLIFERATION
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MORRIS J.C., TOWLER P.S., LONG A.J., GRECO R.,

P., GIANNOTTI J., CIARLETTA A., HENNESSEY D., KOVACIC

P., GIANNOTTI J., WEICH N., NEBEN S., FINNERTY H.,

LD M., SCALTRETO H., WEICH N., NEBEN S., FINNERTY H.,

R., WANG J., NICKBARG E., GASSAWAY R., TURNER K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , SAKSELA O., KALKKINEN 15:290-298(1996).
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76.9%;
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                                                                                                                                                                                                                                           , LAST SEQUENCE UPDATE)
, LAST ANNOTATION UPDATE)
GROWTH FACTOR PRECURSOR
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01-AUG-1992 (REL. 23,
01-OCT-1996 (REL. 34,
VASCULAR ENDOTHELIAL
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-1- FUNCTION: GROWTH
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SUBUNIT: HOMODIMER, DISULFIDE-LINKED.
SUBCELLULAR LOCATION: SECRETED BUT RE
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R; GLYCOPROTEIN; SIGNAL.

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SHARMA H.S., TANG Z.H., GHO B.C.H., VERDOUW P.D.;
BIOCHIM. BIOPHYS. ACTA 1260:235-238(1995).

-i- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS, AND ENDOTHELIAL CELL GROWTH. INDUCES ENDOTHELIAL PROLIFERATION AND VASCULAR PERMEABILITY (BY SIMILARITY).

-i- SUBCULT: HOMODIMER, DISULFIDE-LINKED (BY SIMILARITY).

-i- SUBCELLULAR LOCATION: SECRETED BUT REMAINS ASSOCIATED TO CELLS TO THE EXTRACELLULAR MATRIX UNLESS RELEASED BY HEPARIN (BY
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SIGNAL
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PROSITE;
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                                                                                                                                                                SEQUENCE FROM N.A., AND SEQUENCE MEDLINE: 90069608.
LEUNG D.W., CACHIANES G., KUANG W SCIENCE 246:1306-1309(1989).
[2]
                                                                                                                      SEQUENCE OF
MEDLINE; 901
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EUKARYOTA; METAZOA; CHO
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                            BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PSCVTVQRCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IMILARITY: BELONGS TO THE X81380; G587560; -. E5: PS00249; PDGF; 1.
                                                            CRISP T., FIDDES J.C., CRISP T., FIDDES J.C., L. BIOPHYS. RES. COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 76.9%
10; Conservative
                                                                                                                      OF 27-190 FROM N.A.
90121225.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82
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190
93
127
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22368
                                                                                                                                                                                                                                                                                                                                                                          (VPF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VASCULAR ENDOTHELIAL (
BY SIMILARITY:
BY SIMILARITY:
BY SIMILARITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 93; DB 1; 1
Pred. No. 5.18e-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INTERCHAIN (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERTEBRATA; TETRAPODA; MAMMALIA;
                                                         MITCHELL R., SILVA M., ABRAHAM J.A.; . 165:1198-1206(1989).
                                                                                                                                                                                                                                                                                                              VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PDGF/VEGF FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BA8CC907
                                                                                                                                                                                                       W.-J., GOEDDEL
                                                                                                                                                                                                                                                얶
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                  27-47
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CRC32;
                                                                                                SILVA M.,
                                                                                                                                                                                                                                                                                                                                                                                           (VEGF) (VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (VEGF) (VASCULAR
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                                                                                                                                                                                                                                                                                                              MAMMALIA
                                                                                                       SCHILLING
                                                                                                                                                                                                         FERRARA
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SEQUENCE OF 27-31. MEDLINE; 89286596.

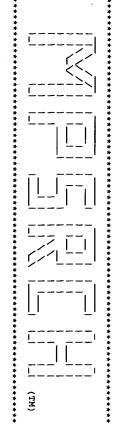
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                    밁
                                                                                  Matches
                                                  Query Match
Best Local
                                                                                                                                                                                                            EMBL; M31836; G163809; EMBL; M33750; G163811; PIR; A33255; A33255. PIR; A33787; A33787. PIR; B40080; B40080. PROSITE; PS00249; PDGF;
                                                                                            DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
VARSPLIC
VARSPLIC
                                                                                                                                                                                                                                                                                                                                                        FERRARA N., HENZEL W.J.;
BIOCHEM. BIOPHYS. RES. COMMUN. 161:851-858(1989).
-!- FUNCTION: GROWTH FACTOR ACTIVE IN ANGIOGENESIS,
                                                                                  SEQUENCE
                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                                                    PERMEABILITY.
-!- SUBUNIT: HOMODIMER, DISULFIDE-LINKED.
-!- SUBCELLULAR LOCATION: SECRETED BUT REMAINS P
TO THE EXTRACELLULAR MATRIX UNLESS RELEASED
                                                                                                                                                                              CHAIN
                                                                                                                                                                                                                                                                         -!- SIMILARITY: BELONGS TO EMBL; M32976; G163007; -.
 69
                    74 PSCVPLMRCGGCC 86
                                                                                                                                                                                                                                                                                                                                                CELL GROWTH. INDUCES
 PSCVTVQRCGGCC
                                                              N; GROWTH FACTOR; G

1 26
27 93
82 127
86 129
76 76
85 85
100 100
1184 184
90 AA; 22310 MW;
                                         Similarity
10; Conse
                                        Conservative
 81
                                                  76.9%;
76.9%;
                                                                                                                                                                                                 GLYCOPROTEIN; ALTERNATIVE SPLICING; SIGNAL
                                                                                                                                                                                                                                                                                                                                                ENDOTHELIAL PROLIFERATION
                                                                                                                                                                                                                                                                                    THE PDGF/VEGF FAMILY OF
                                       Score 93;
Pred. No.
1; Misma
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INTERCHAIN (BY S
POTENTIAL.
MISSING (IN BETA
R -> K (IN BETA
                                                                                                                                              VASCULAR ENDOTHELIAL
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                 -> K (IN BETA-FORM).
E22F67FD CRC32;
                                         Mismatches
                                                   93; DB 1;
No. 5.18e-07
                                                                                                      (IN BETA-FORM).
                                                                                                                         SIMILARITY).
SIMILARITY).
                                                           Length 190;
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D BY HEPARIN (BY
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                                         Indels
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                                                                                                                                                                               FACTOR
                                         0
                                         Gaps
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R
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Search completed: Thu Nov 26 00:01:39 1998 Job time : 8 secs.

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t, V



Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Nov 26 00:00:38 1998; MasPar time 3.45 Seconds 148.181 Million cell updates/sec

Tabular output not generated.

Description: Perfect Score: Sequence: >US-09-033-662-2 (69-82) from US09033662.pep 121

1 PSCVTVQRCGGCCP 14

Scoring table: PAM 150 Gap 11

Searched: 120441 segs, 36531193 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

pir56 1:pir1 2:pir2 3:pir3 4:pir4 5:nrl3d

Statistics: Mean 23.485; Variance 43.203; scale 0.544

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result	Score	Query Match	Length	BG BG	ID	Description	Pred. No.
_	121	100.0	188	N	JC4680	vascular endothelial	3.68e-11
2	121	•	207	N	JC4679		.68e-
w	97	80.2	63	տ	1PDGB2	1	
4	97		66	v	1PDGC2	-derived	1.33e-06
Çī	97.	•	68	v	1PDGA2	Platelet-derived grow	1.33e-06
o	97		161	N	138108	-	1.33e-06
7	97		185	N	S58383		1.33e-06
8	97		225	N	S25097	-	1.33e-06
9	97		226	ш	SSVMVT		1.33e-06
10	97	٠	230	N	A55030	platelet-derived grow	1.33e-06
11	97		241	Ц	PFHUG2	platelet-derived grow	1.33e-06
12	97	80.2	241	<u> </u>	PFMSGB	ived	1.33e-06
13	97		245	۳	TVCTSS	platelet-derived grow	1.33e-06
14	97	•	271	N	A25669	_	1.33e-06
15	95		133	N	B49530	vascular endothelial	3.11e-06
16	95		148	N	D49530	16K vascular endothel	3.11e-06
17	94	77.7	419	N	S69207	vascular endothelial	4.75e-06
18	93	σ.	120	N	A33787	<ul> <li>vascular endothelial</li> </ul>	7.23e-06
19	93	σ.	146	N	S57956	ovine vascular endoth	7.23e-06
20	93		190	2	S52130	vascular endothelial	7.23e-06
21	93	76.9	190	N	B40080	vascular endothelial	7.23e-06
22	93	ა	232	N	A41551	vascular endothelial	7.23e-06
23	88	72.7	166	2	JN0248	platelet-derived grow	5.81e-05

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24
59	60	61	62	63	63	75	84	86	87	87	87	87	88	88	88	88	88	88	88	88	88
48.8	49.6	50.4	51.2	52.1	52.1	62.0	69.4	71.1	71.9	71.9	71.9	71.9	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
466	323	438	178	392	143	463	158	149	214	190	190	128	226	215	211	200	198	197	196	196	196
N	N	N	N	N	N	N	ນ	2	N	N	N	N	N	N	۲	N	N	N	N	N	N
F69806	I48667	C64148	A23219	A60777	B21761	S77558	A56125	A41236	A44881	A35987	B44881	I51295	I51550	S08220	PFHUG1	151551	JS0735	S25096	A48851	B28964	A37359
RNA methyltransferase	MHa3 (keratin acidic	hypothetical protein	high-cysteine chorion	keratin 2, type I, ha	<u>cein</u>	hypothetical protein	placental growth fact	placental growth fact	vascular endothelial	glioma-derived vascul	vascular endothelial	vascular endothelial	platelet-derived grow								
4.33e+00	3.04e+00	2.13e+00	1.48e+00	1.03e+00	1.03e+00	1.10e-02	3.00e-04	1.32e-04	8.78e-05	8.78e-05	8.78e-05	8.78e-05	5.81e-05								

### ALIGNMENTS

SULT 2 TRY TEE TERNATE_NAMES GANISM TE	Db 70 PSCVTVQ          Qy 69 PSCVTVQ	Query Match Best Local Simi Matches 14;	#map_position #introns FEATURE 1-21 22-188 SUMMARY		##molecule_type mRNA ##residues 1-18 ##cross-references G COMMENT This factor is	#journal #title	AMES
71 H	PSCVTVQRCGGCCP 83	h 100.0%; Score 121; DB 2; Length 188; Similarity 100.0%; Pred. No. 3.68e-11; 14; Conservative 0; Mismatches 0; Indels 0; Gaps ^:	19 19 19 137/2 #domain signal sequence #status predicted #label SIG\ #product vascular endothellal growth factor-related factor #status predicted #label MAT #length 188 #molecular-weight 21442 #checksum 5881	Ω	##molecule_type mRNA ##molecule_type mRNA ##rross-references GB:U43837; NID:g1314335; PID:g1314336 ##cross-references GB:U43837; NID:g1314335; PID:g1314336	Nordenskjoeld, M.; Weber, G.; Hayward, N.; Nordenskjoeld, M.; Weber, G.; Hayward, N.; Biochem. Biophys. Res. Commun. (1996) 220:922-928 Characterization of the murine VEGF-related factor gene.	#type complete endothelial growth factor-related factor 10 xottein ame Mus musculus #common_name house mouse 96 #sequence_revision 19-Jul-1996 #text_ch 1997

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#title
COMMENT Re
COMMENT Dev
KEYWORDS
FEATURE
5-13
21-40,44-63
18-21
18-21
18-21
                                                                                                                                                                                                 23
12-60
16-62
SUMMARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #map_position
KEYWORDS
FEATURE
1-21
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#gene
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ENTRY
TITLE
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                                              В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
#authors
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  69
                                                                                                                      Match 80.2%;
Local Similarity 76.9%;
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                                                 4
                                              PPCVEVQRCSGCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBO J. (1992) 11:3921
Crystal structure of human
Resolution: 3.0 angstroms
Determination: X-ray diffraction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    h 100.0%;
Similarity 100.0%;
14; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oefner, C.; D'arcy, A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     submitted to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lPDGB2 #type fragment
platelet-derived growth f.
human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Townson, S.; Lagercrantz, J.; Grimmond, S.; Silins, G.; Nordenskjoeld, M.; Weber, G.; Hayward, N. Biochem. Biophys. Res. Commun. (1996) 220:922-928 Characterization of the murine VEGF-related factor gene.
                                                                                                                                                                                                 #length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oefner, C.; Darcy, A.D.; Winkler, F.K.; Eggimann, B.; Hosnag,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                recombinant form A51904
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#disulfide_bonds interchain (
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#product vascular endothelial growth factor related
factor #status predicted #label MAT
gth 207 #molecular-weight 21914 #checksum 1525
                                                                                                                                                                                                                                                                                                                                                                                                                        #region
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  81
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beta sheet\
                                                                                             Score 97; DB 5; I
Pred. No. 1.33e-06;
2; Mismatches 1
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Pred. No. 3.68e-11;
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#authors Oefner, C.; D'arcy, A.; Winkler, F.K.; Eggimann,
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Resolution: 3.0 angstroms
Determination: x-ray diffraction
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Determination: X-ray diffraction Growth factor
h 80.2%;
Similarity 76.9%;
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PPCVEVQRCSGCC 17

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##molecule_type mRNA
##residues 1-161 ##label RES
##coss-references EMBL:X63966; NID:g311378; PID:g35377
CLASSIFICATION #superfamily platelet-derived growth factor
SUMMARY #length 161 #molecular-weight 18237 #checksum RESULT ENTRY TITLE RESULT ENTRY TITLE ACCESSIONS REFERENCE ORGANISM DATE RESULT Ş Š 8 DATE ŝ β ORGANISM SUMMARY REFERENCE ORGANISM TITLE ACCESSIONS Query Match Best Local Matches Query Match Best Local : Matches #journal #title #journal #title #title Purification and analysis of proteinase-resistant mutants of recombinant platelet-derived growth factor-BB exhibiting improved biological activity.

#cross-references_MUID:92117992 #accession #authors #accession #authors 107 PPCVEVQRCSGCC 119 ##molecule_type mRNA
##residues 1-185 ##label DIR ##Status ##Status 69 PSCVTVQRCGGCC Match 80.2%; Local Similarity 76.9%; Match 80.2%; Local Similarity 76.9%; 69 69 PSCVTVQRCGGCC 81 42 PPCVEVQRCSGCC 54 PSCVTVQRCGGCC 81 O മ 10; S58383 A novel human c-sis mRNA species is transcribed promoter in c-sis intron 1 and contains the calternative PDGF B-like protein. Cook, A.L.; Kirwin, P.M.; Craig, S.; Bawden, L.J.; Green, D.R.; Price, M.J.; Richardson, S.J.; Fallon, A.; Drummond, A.H.; Edwards, R.M.; Clements, J.M. Biochem. J. (1992) 281:57-65 138108 #type complete
platelet-derived growth factor-BB - human
#formal_name Homo sapiens #common_name man
06-Sep-1996 #sequence_revision 06-Sep-1996 #text_change Bloemers, H.P.J. Nucleic Acids Res. (1995) 23:2815-2822 \$58383 #type complete
hypothetical protein 2 - human
formal_name Homo sapiens #common_name man
12_Feb-1998 #sequence_revision 20-Feb-1998 #text_change 138108 Dirks, R.P.H.; Onnekink, C.; Jansen, H.J.; 138108 #formal_name Rattus norvegicus #common_name Conservative Conservative 09-May-1997 20-Feb-1998 (fragment) preliminary preliminary; translated from GB/EMBL/DDBJ 81 #molecular-weight 20774 #checksum Score 97: DB 2; L Pred. No. 1.33e-06; Score 97; DB 2; I Pred. No. 1.33e-06 2 Mismatches Mismatches Length 185; Length 161; l; Indels Indels de Norway rat code Jong, A.; 0 0 2728 8276 om a rat an 0 0,

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                                                                                                                    #journal Proc. Natl. Acad. Sci. U.S.A. (1983) 80:731-735
#title Nucleotide sequence of the simian sarcoma virus genome:
demonstration that its acquired cellular sequences encode
the transforming gene product p28(sis).
#cross-references MUID:83144004
#accession A01381
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Best Local Similarity 76.9%;
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#accession I52866
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##residues 89-172 ##label HER2
##cross-references EMBL:Z14117
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##molecule_type mRNA
##residues 74-182 ##label RES
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##residues 1-226 ##label DEV
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#formal_name simian sarcoma virus
23-Jul-1983 #sequence_revision 20-Sep-1984 #text_change
31-Oct-1997
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Circ. Res. (1995) 76:951-957
A subpopulation of smooth muscle cells in injured rat
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M.S.; Wong-Staal, F.
#journal Science (1984) 225:636-639

#title Transforming potential of human c-sis nucleotide sequences
encoding platelet-derived growth factor.

#cross-references_MUID:84250225
                                                                                                  #authors
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                                                                                                                               ##molecule_type DNA
#residues 1-241 ##label JOS
##cross-references GB:K01401; NID:g338206; PID:g338209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ##residues 1-230 ##label JOH
##cross-references GB:X00556; GB:X00559; GB:X00560; GB:X00561;
#FICATION #superfamily platelet-derived growth factor
#Y #length 230 #checksum 3580
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Similarity 76.9%;
10; Conservative
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                                                  Chiu, I.M.; Reddy, E.P. S.R.; Aaronson, S.A. Cell (1984) 37:123-129
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Deuel, T.F.; Huang, J.S.; Seeburg, P.H.; Gray, A.; Ullrich,
A.; Scrace, G.; Stroobant, P.; Waterfield, M.D.
EMBO J. (1984) 3:921-928
The c-sis gene encodes a precursor of the B chain of
platelet-derived growth factor.
A55030
                                                                                                                                                                                                                                                                                                                                                            20-Mar-1998
A94276; A21024; A23532; A93366; A25141; A94271; A93308;
A43499; S56115; I57635; I37266; A01380; A94622
                                                                                                                                                                                                                                                                                                                                                                                                                     #formal_name Homo sapiens #common_name man
18-Apr-1984 #sequence_revision 20-Sep-1984 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PFHUG2 #type complete
platelet-derived growth factor chain B precursor -
PDGF B-chain; PDGF-B; PDGF-II; PDGF-related transfo
                                                                                                                                                                                                    A94276
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18-Nov-1994 #sequence_revision 18-Nov-1994 #text_change
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                Nucleotide sequence analysis identifies the human c-sis proto-oncogene as a structural gene for platelet-derived
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similarity #label PDG
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Pred. No. 1.33e-06;
2; Mismatches 1
                                                                                             E.P.;
                                                                                             Givol, D.; Robbins,
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#title Human platelet-derived growth factor (PDGF): amino-terminal
amino acid sequence.
#cross-references_MUID:83197379
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#accession A25141
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#title Structure and sequence of the human c-sis/platelet-derived
growth factor 2 (SIS/PDGF2) transcriptional unit.
#cross-references_MUID:86205961
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                                                                                                               ##residues
                                                                                                                                 ##molecule_type DNA
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##residues 1-241 ##label COL
##cross-references GB:X02811; NID:g35371; PID:g35372
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##cross-references GB:M12783;
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##residues 82-112 ##label WAT
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##residues 82-100,'E',102-104,'C',106,'C',108-110 ##label ANT
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Lu, K.V.; Rohde, M.F.; Thomason, A.R.; Kenney, W.C.; Lu, I
Blochem. J. (1995) 309:411-417
Mistranslation of a TGA termination codon as tryptophan in
recombinant platelet-derived growth factor expressed in
                                                                                                                                                                                                  Josephs, S.F.; Guo, C.; Ratner, L.; Wong-Staal, F. Science (1984) 223:487-491
Human proto-oncogene nucleotide sequences corresponding the transforming region of simian sarcoma virus.
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The human osteosarcoma cell line U-2 OS expresses a 3.8 kilobase mRNA which codes for the sequence of the PDCF-R
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Huang, J.S.; Deuel, T.F.
Nature (1983) 304:35-39
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Cultured human endothelial cells express platelet-derived growth factor B chain: cDNA cloning and structural
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A23532
                                                                                       S56115
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                                                                                                                                                                                                                                                                                                                                                                                                                            Platelet-derived growth factor is structurally related to putative transforming protein p28(sis) of simian sarcoma
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                                                                                                               ,22-241 ##label JO2
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GB:M16288; NID:g338210;
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Heldin, C.H.;
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                                                                                                         SUMMARY
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                          Query Match
Best Local
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191-241
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#journal Nucleic Acids Res. (1985) 13:5007-5018
#title Nucleotide sequence of transforming human c-sis cDNA clones
#title with homology to platelet-derived growth factor.
#cross-references_MUID:85269623
                                                                                                                                                                                                             133
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134-180
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NT The receptor for this growth factor is a tyrosine kinase. The receptor for this growth factor is a tyrosine for cells common platelet-derived growth factor, a potent mitogen for cells common platelet-derived growth factor, a potent mitogen for cells common platelet-derived growth factor, a potent mitogen for cells common platelet-derived growth factor which may be both of type A, both of type B, or an A-B heterodimer. Reduction of its disulfide bonds irreversibly destroys biological activity. Different receptors bind preferentially to A-A and B-B homodimers. This growth factor induces a variety of cellular B romodimers. This growth factor band A chains are encoded by genes located on different thromosomes. The two genes are expressed independently in human timer cells.
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pp_position 22q12.3-22q13.1

itrons 57/3; 94/1; 192/3; 241/1

IFICATION #superfamily platelet-derived growth factor
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##residues 82-93 ##label LUK
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S56115
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The 5' untranslated sequence of the c-sis/platelet-derived growth factor 2 transcript is a potent translational
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                                                                                                         #length 241
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                                                                                                   #status experimental\
#disulfide_bonds interchain (to chain A-132 in
heterodimeric form) #status predicted\
#disulfide_bonds interchain (to 124 in homodimu
                                                                                                                                                                                                                                                                                                                                                                                       #label PRO\
#product platelet-derived growth factor chain B #statu
experimental #label MAT\
#region receptor binding #status predicted\
#domain carboxyl-terminal propeptide #status predicted
#label CTP\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             translated from GB/EMBL/DDBJ
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                                                                                                                                                                                                                                                                                                                #disulfide_bonds #status experimental\
#disulfide_bonds interchain (to 133 in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #domain signal sequence #status predicted #label SI
                          80.2%;
Score 97; DB 1; I
Pred. No. 1.33e-06;
2; Mismatches 1
                                                     Length 241;
                                                                                                         #checksum 3348
                                                                                                                                                                                                               homodimeric
                                                                                                                                                                                                                                                                                                                   homodimeric
     0
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122 PPCVEVQRCSGCC 134

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ALTERNATE_NAMES
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1-20
21-81
82-190
      FEATURE
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82-194
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                                                                                                              KEYWORDS
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Best Local
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63
                                                                                                                                                                                                                                                          #authors Van den Ouweland, A.M.W.; Van Groningen, J.J.M.; Schalken,
J.A.; Van Neck, H.W.; Bloemers, H.P.J.; Van de Ven, W.J.M.
#journal Nucleic Acids Res. (1987) 15:959-970
#title Genetic organization of the c-sis transcription unit.
#cross-references_MUID:87146463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #accession
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #authors
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ##residues
                                                                                                                                                                                                                    ##molecule_type mRNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    69
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     h 80.2%;
Similarity 76.9%;
10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mouse
PDGF-related transforming protein
#formal_name Mus musculus #common_name house mouse
#formal_name Mus musculus #common_name house mouse
#formal_name Musculus #common_name house mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           $1s
#superfamily platelet-derived growth factor
glycoprotein; growth factor; platelet; proto-oncogene;
transforming protein
                                                                                                                                                                                                                                                                                                                                                                                                                                    TYCTSS #type complete
platelet-derived growth factor chain B precursor - cat
pDGF-related transforming protein
#formal_name Felis silvestris catus #common_name domestic
30-Jun-1989 #sequence_revision 30-Jun-1989 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bonthron, D.T.; Sultan, P.; Collins, T. Genomics (1991) 10:287-292
Structure of the murine c-sis proto-oncogene (Sis, PDGFB) encoding the B chain of platelet-derived growth factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A3907
                                                                                                          #superfamily platelet-derived growth factor
glycoprotein; growth factor; platelet; proto-oncogene.
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platelet-derived growth factor chain B precursor (sis) .
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                                                                                        transforming protein
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#domain propeptide #status predicted #label PRO\
#product platelet-derived growth factor chain B #status
predicted #label MAT\
#region receptor binding #status predicted\
#binding_site carbohydrate (Asn) (covalent) #status
#domain signal sequence #status predicted #label SIG\
#domain propeptide #status predicted #label PRO\
#product platelet-derived growth factor chain B *statu
                                                                                                                                                                                                1-245 ##label VAN
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2; 1
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Pred. No. 1.33e-06;
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    #Status
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    Query Match 78.5%;
Best Local Similarity 76.9%;
Matches 10; Conservative
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Best Local Similarity 76.9%;
Matches 10; Conservative
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Best Local Similarity 76.9%;
Matches 10; Conservative
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63
                                                                                                                                                                                                                                                                                           Robinson, A.J.

#journal J. Virol. (1994) 68:84-92

#title Homologs of vascular endothelial growth factor are encoded by

#cross-references MUID:94076465
                                                                                                                                                                                                                                                                                                                                                                                                        #authors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #authors Hannink, M.; Sauer, M.K.; Donoghue, D.J.
#journal Mol. Cell. Biol. (1986) 6:1304-1314
#cross-references MUID:87064399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #accession
                                                                                                                                                                                                                                                                                contents
                                                                                               ##residues 1:133 ##label LYT
##cross-references GB:S67520; NID:g456897; PID:g456899
##cross-references GB:S67520; NID:g456897; PID:g456899
##note sequence inconsistent with nucleotide translation
sequence extracted from NCBI backbone (NCBIN:141420)
##note NCBIP:141425]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                152 PPCVEVQRCSGCC 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ##status preliminary

##molecule_type protein

##residues 1-271 ##label HAN

##note deletions in the C-Terminal Coding Region of the v-sis

##note Gene: Dimerization Is Reguired for Transformation

IFICATION #superfamily platelet-derived growth factor

#length 271 #molecular-weight 30108 #checksum 5973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      126 PPCVEVQRCSGCC 138
|:|| ||||:|||
69 PSCVTVQRCGGCC 81
                                                                                                                                                                                                               ##molecule_type DNA
                                                                                                                                                                                                                                       ##status
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                                                                                #length 133 #molecular-weight 14729 #checksum 8681
                                                                                                                                                                                                                                                           B49530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #formal_name Orf virus
07-Apr-1994 #sequence_revision 18-Nov-1994 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                     Lyttle, D.J.; Fraser, K.M.; Fleming, S.B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B49530 #type complete vascular endothelial growth factor homolog A2R, 14.7K - Orf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A25669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #formal_name simian sarcoma virus
28-Sep-1987 #sequence_revision 28-Sep-1987 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     predicted predicted #molecular-weight 27787 #checksum 2148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A25669 #type complete PDGF-related transforming protein (v-sis) -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-Mar-1998
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                                                                                                                                                                                                                                     preliminary
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#binding_site carbohydrate (Asn) (covalent) #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
Score 95; DB 2; Length 133; Pred. No. 3.11e-06; 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 97; DB 2; Length 271; Pred. No. 1.33e-06; 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 97; DB 1; Length 245; Pred. No. 1.33e-06; 2; Mismatches 1; Indels
                                         Length 133;
                                                                                                                                                                                                                                                                                                                                                                                                     Mercer, A.A.;
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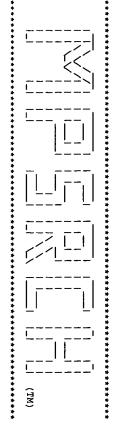
Search completed: Thu Nov 26 00:01:13 1998 Job time: 35 secs.

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Release 3.1A John F. Collins, Biocomputing Research Copyright (c) 1993-1998 University of Edinburgh, U. Distribution rights by Oxford Molecular Ltd 7

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Wed Nov 25 23:59:51 1998; MasPar time 2.92 Seconds 77.454 Million cell updates/sec

Tabular output not generated.

Description: Perfect Scor >US-09-033-662-2 169-82) from US09033662.pep

Sequence: Score: PSCVTVQRCGGCCP 14

Scoring table: PAM 150 Gap 11

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

a-geneseq32
a-geneseq32
B:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
B:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: 17.247; Variance 67.281; scale 0.256

Pred. d. No. is the number of results predicted by chance to have a re greater than or equal to the score of the result being printed, is derived by analysis of the total score distribution.

#### SUMMARIES

Z

No.	Score	Query Match I	Length I	BB	ID	Description	Pred. No.
1	121	100.0	101	19	W00728	Vascular endothelial	6.06e-05
N	121	100.0	102	2	W04824	Vascular endothelial	6.06e-05
ω	121	100.0	133	21	W04828	Vascular endothelial	6.06e-05
4	121	100.0	143	9	W00727	Vascular endothelial	6.06e-05
տ	121	100.0	188	21	W04829	Fibrosarcoma vascular	6.06e-05
σ	121	100.0	188	9	W00864	Murine VRF167.	6.06e-05
7	121	100.0	188	19	W00726	Vascular endothelial	6.06e-05
œ	121	100.0	188	2	W04826	Heart vascular endoth	6.06e-05
g	121	100.0	195	21	W04827	Heart vascular endoth	6.06e-05
10	121	100.0	207	19	W00863	Murine VRF186.	6.06e-05
11	121	100.0	207	19	W00725	Vascular endothelial	6.06e-05
12	121	100.0	207 :	21	W04831	Vascular endothelial	6.06e-05
13	121	100.0	207	21	W04830	Vascular endothelial	6.06e-05
14	121	100.0	221	23	W07611	Human vascular endoth	6.06e-05
15	101	83.5	620	22	W14994	Human c-Fos induced g	5.63e-03
16	97	80.2	109	ņ	R25673	PDGF-B.	1.38e-02
17	97	80.2	109	4	R20967	Sequence of B-chain o	1.38e-02
18	97	80.2	109	ω	P81030	Sequence of mature B-	1.38e-02

Query Match 100.0%; Best Local Similarity 100.0%; Matches 14; Conservative

Score 121; DB 19; Pred. No. 6.06e-05; 0; Mismatches 0;

Length 101; Indels

0

Gaps

0

45	44	43	42	41	40	39	38 8	37	36	ω 5	34	ယ	32	31	30	29	28	27	26	25	24	23	22	21	20	19
97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97
	•	•				•	•		•	•	•	•	•	80.2	•		•	•	•		•		•	•	•	•
				256 12										216 12												
_	6508d	R63468	R4096	R6347				R6347										R67261		R12879	P80163				R87515	
Human PDGF-B 119 link	Recombinant platelet	Recombinant platelet	CGH/PDGF Bv-sis fusio	CGH/PDGF B fusion pro	Recombinant platelet	Recombinant platelet	Platelet-derived Grow	Recombinant platelet	Platelet-derived Grow		Sequence encoded by t	v-sis protein p28sis.	Recombinant platelet	PDGF-E	F-B 109 St	1a	Human PDGF-B 119 subu	PDGF-B119.	rPDGF refolded Bil9 h	rPDGF-B119 from pCFM1	Biosynthetic multifun	PDGF-BB monomer unit.	PDGF mosaic peptide B	Mature human PDGF-B.	PDGF mosaic peptide B	PDGF analogue #3.
1.38e-02	1.38e-02	.38e	e-				1.38e-02	1.386-02	1.38e-02	1.38e-02	8	1.38c-02	1.38e-uz	1.38e-02		1.38e-02	. 386	. 38e	. 38e	1.38e-02	.380	.38e-	.38e-	1.38e-02	.38e-	1.38e-02

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RESULT THE STORY OF S
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22-FEB-1996; AUO094.
02-MAR-1995; AU-001457.
20-NOV-1995; AU-006647.
22-DEC-1995; AU-007274.
(AMRA-) AMRAD OPERATIONS E
                          Claim 14; Page 48; 113pp; English.

Splice variants (W00726-28) of the human vascular endothelial growth factor-like polypeptide SOW175 (see also W00725) are products of cDNA clones (see also SOW175 (see also T33610). They show at least 1 of the properties of SOW175 (see also T33610). They show at least 1 of the properties of SOW175 including the ability to induce proliferation of vascular endothelial cells, to interact with fit-1/fik-1 receptors, and to induce cell migration, cell survival and/or an increase in intracecllular levels of alkaline phosphatase. Recombinant SOM175 proteins can be used to induce astroglial proliferation and to promote neural survival and/or proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vascular endothelial growth Vascular endothelial growth astroglial proliferation.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New growth factor related to vascular endothelial growth factor -useful for inducing astroglial proliferation and promoting neuronal
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    Sequence
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    101 AA;
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Larsson C,
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factor; VEGF; SOM175-e4; neuron;
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pscvtvqrcggccp

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                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                            PT vascular endothelial growth factor VEGF-B proteins - useful to PT accelerate angiogenesis in wound healing, also related nucleic acid PT and antibodies for cancer diagnosts:

CC W04824-W04831 represent the vascular endothelial growth factor (VEGF) CC W04824-W04831 represent the vascular endothelial or mesodermal cell CC proliferation. VEGF is also a glycosylated cationic dimer, and is CC sometimes referred to as vascular permeability factor (VPF). VEGF has CC diverse effects, depending on the specific biological context in which it is found. VEGF is a potent endothelial cell mitogen, and directly CC contributes to induction of angiogenesis in vivo by promoting endothelial CC cell growth during normal emproyence development, wound healing, and CC cell growth during normal emproyence development, wound healing, and contributes to induction of angiogenesis in vivo by promoting endothelial CC cell growth during normal emproyence for VEGF poteins of the invention CC and expressed in tissues differently to VEGF proteins of the invention CC and expressed in tissues differently to VEGF metasterion. Antibodies can therefore be used to accelerate angiogenesis in wound healing. Antibodies can can be used to growth and their properties of VEGF. The proteins can therefore CC complementary to the coding sequences for the proteins of the invention CC VEGF-B used to detect VEGF-B coding sequences. Quantification of CC VEGF-B in cancer biopsy specimens may be useful as an indicator of centastatic risk. VEGF-B expression in a cell can be retarded using CC expecially useful in retarding VEGF expression in tumour cells.
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06-DEC-1995; US-469427.
(LUDW-)
              Vascular endothelial growth factor-B112. 
Endothelial cell; proliferation; vascular endothelial growth factor; VPF; VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody; cancer; metastatic risk; tumour cell; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-DEC-1995; US-569063.
(LUDW-) LUDWIG INST CANCER RES.
(UYHE-) UNIV HELSINKI LICENSING LTD O
Alitalo K, Eriksson U, Olofsson B,
WPI: 96-412582/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vascular endothelial growth factor fragment #1.

Endothelial cell; proliferation; vascular endothelial growth factor; VPF
VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration;
vascular permeability factor; cell mitogen; anglogenesis; cell growth;
embryonic development; wound healing; tissue reorganisation; antibody;
                                                                                                                                                                                  W04828 standard;
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                                                                                                                                          28-APR-1997
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01-MAR-1995; US-397
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larity 100.0%;
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d. No. 6.06e-05;
Mismatches 0;
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PS Claim 18; Pages 58; 107pp; English.

CC W04824-W04831 represent the vascular endothelial growth factor (VEGF)

CC W04824-W04831 represent the vascular endothelial or mesodermal cell

CC proliferation. VEGF is also a glycosylated cationic dimer, and is

CC sometimes referred to as vascular permeability factor (VPF). VEGF is

CC contributes referred to as vascular permeability factor (VPF). VEGF is

CC contributes to induction of anglogenesis in vivo by promoting endothelial

CC cell growth during normal embryonic development, wound healing, and

CC cell growth during normal embryonic development, wound healing, and

CC cell growth during normal embryonic development, wound healing, and

CC share the anglogenic and other properties of VEGF, but are distributed

CC and expressed in tissues differently to VEGF, but are distributed

CC and expressed in tissues differently to VEGF, but are distributed

CC the proteins can be used for inhibiting anglogenesis. The antibodies can

CC complementary to the coding sequences for the proteins of the invention

CC can also be used to detect VEGF-B coding sequences. Quantification of

CC WEGF-B in cancer biopsy specimens may be useful as an indicator of

CC metastatic risk. VEGF-B expression in a cell can be retarded using

CC expecially useful in retarding VEGF expression in tumour cells.
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02-MAR-1995; I
20-NOV-1995; I
22-DEC-1995; I
survival
Claim 13; Page 46; 113pp; E
Splice variants (W00726-28)
                                           New growth factor re
useful for inducing
                                                                                                                                                                                                                                                                                      Homo
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WPI; 96-412582/41.
N-PSDB; T37912.
                                                                                                        Weber
                                                                                                                      Grimmond S,
                                                                                                                                                                                                                            WO9627007-A1.
                                                                                                                                                                                                                                                        peptide
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06-JUR-1995; US-469427.
06-DEC-1995; US-589063.
(LUDW-) LUDWIG INST CANCER RES.
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                                                                          96-412774/41.
DB; T33612.
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Similarity 100.0%;
14; Conservative
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K, Eriksson U, Olofsson B,
                                                                                                                                     AMRAD
                                                                                                                                                AU-001457.
AU-006647.
AU-007274.
                                                                                                                    OPERATIONS Hayward NK,
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                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                         /label= Sig_peptide
                                                                                                                                                                                                                                                                                                                                                                             Protein; 143 AA.
                                                            related
                                           elated to va
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                                                                                                                    PTY LTD.
Larsson
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               English.
 of the
                                                                                                                                                                                                                                                                                                                   factor-like protein SOM175-e6+e7
factor; VEGF; SOM175-e6+e7; neuro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 121; DB 21; Pred. No. 6.06e-05; 0; Mismatches 0;
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                                                           vascular
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B, Pajusola '
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 vascular endothelial growth
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                                             neuronal
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06-SEP-1996.

01-MAR-1996.

01-MAR-1995: US-397651.

06-JUN-1995: US-469427.

06-DEC-1995: US-569063.

(LUDW-) LUDWIG INST CANCER RES.

(LUDW-) LUDWIG INST CANCER RES.

(UVHE-) UNIV HELSINKI LICENSING LTD OY

Alltalo K, Eriksson U, Olofsson B, I

WPI: 96-412582/41.

N-PSDB: T37913.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing, and antibodies for cancer diagnosis Claim 18; Page 59; 107pp; English. W04824-W04831 represent the vascular endot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-APR-1997 (first entry)
Fibrosarcoma vascular endothelial growth factor-B167.
Endothelial cell; proliferation; vascular endothelial growth factor; VPF;
Endothelial cell; proliferation; cascular endothelial growth factor; cell; cationic dimer; tissue regeneration;
vascular permeability factor; cell mitogen; angiogenesis; cell growth;
embryonic development; wound healing; tissue reorganisation; antibody;
cancer; metastatic risk; tumour cell; mouse.
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pscvtvqrcggccp
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Pred. No. 6.06e-05;
0; Mismatches 0
                                                  Score 121; DB 21;
Pred. No. 6.06e-05;
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06-SEP-1996.
22-FEB-1996; AU0094.
22-MAR-1995; AU-001457.
20-NOV-1995; AU-006647.
22-DEC-1995; AU-007274.
(AMRA-) AMRAD OPERATIONS P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-MAR-1995; AU-001457.
20-NOV-1995; AU-006647.
22-DEC-1995; AU-007274.
(AMRA-) AMRAD OPERATIONS P
Grimmond S, Hayward NK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 5; Fig 9; 113pp; English.

WRF167 (W00863) is the murine homologue of an alternatively spliced variant (W00726) of human vascular endothelial growth factor-like polypeptide SOM175 (W00725), a protein capable of inducing astroglial proliferation and of promoting neural survival and/or proliferation. Its amino acid sequence was deduced from a CDNA clone (T13810) isolated from a new-born mouse brain CDNA library. WRF167 shows 85% identity and 92% similarity to its human counterpart. It lacks 101 amino acids found in WRF186 (W00863), the murine homologue of SOM175, owing to a deletion of exon 6 during splicing.

Sequence 188 AA;
                                                                   Weber
                                                                                                                                                                                                                                                                                                                                                                                vascular endothelial growth vascular endothelial growth astroglial proliferation.
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Murine VRF167.
VRF; vascular endothelial growth factor; VEGF; SOM175; neuron;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W00864 standard; Protein; 188
W00864;
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W00726;
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                                                  WPI; 96-412774/41.
                                                                                                                                                                                                                                                                                                            peptide
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22-FEB-1996;
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Larsson
                                                                                                                     PTY LTD.
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  ç
                                                                                               Larsson
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Pred. No. 6.06e-05;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                              factor-like protein SOM175-e6.
factor; VEGF; SOM175-e6; neuron;
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PRESULT

AC WATER

AC WATE
        PT accelerate envoluences is in wound healing, also related nucleic acid process in an antibodies for cancer diagnosis

Claim 18; Page 55-56; 107pp; English.

CC W04824-W04831 represent the vascular endothelial growth factor (VEGF)

CC proteins of the invention, which promote endothelial or mesodermal cell

CC proteins of the invention, which promote endothelial or mesodermal cell

CC proteins of the invention, which promote endothelial or mesodermal cell

CC proteins referred to as vascular permeability factor (VPF): VEGF has

CC diverse effects, depending on the specific biological context in which it

CC is found. VEGF is a potent endothelial cell mitogen, and directly

CC contributes to induction of angiogenesis in vivo by promoting endothelial

CC cell growth during normal embryonic development, wound healing, and

CC tissue regeneration/reorganisation. The VEGF proteins of the invention

CC share the angiogenic and other properties of VEGF, but are distributed

CC is never the angiogenesis in wound healing. Antibodies against

CC the proteins can be used for inhibiting angiogenesis. The antibodies can

CC also be used diagnostically to quantitatively detect VEGF-B. Primers

CC complementary to the coding sequences for the proteins of the invention

CC can also be used to detect VEGF-B coding sequences. Quantification of

CC metastatic risk. VEGF-B expression in a cell can be retarded using

CC especially useful in retarding VEGF expression in tumour cells.
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01-MAR-1995; US-397651.
06-JUN-1995; US-469427.
06-DEC-1995; US-569063.
(LUDW-) LUDWIG INST CANCER RES.
(UYHE-) UNIV HELSINKI LICENSING LTD OY.
Alitalo K, Eriksson U, Olofsson B, Pajusola WPI; 96-412582/41.
N-PSDB; T37910.
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Splice variants (W00726-28) of the human vascular endothelial growth factor-like polypeptide SOM175 (see also W00725) are products of CDNA clones (see also T33611-13) respectively lacking exon 6, exons 6+7, and exon 4 of the SOM175 gene (see also T33610). They show at least 1 of the properties of SOM175 including the ability to induce proliferation of vascular endothelial cells, to interact with fit-1/flk-1 receptors, and to induce cell migration, cell survival and/or an increase in intracellular levels of alkaline phosphatase. Recombinant SOM175 proteins can be used to induce astroglial proliferation and to promote neural survival and/or proliferation. Sequence 188 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vascular endothelial growth
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W09626736-A1.
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28-APR-1997
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Pred. No. 6.06e-05;
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Query Match

100.0%;

Score 121;

В 21;

Length 188

Murine VRF186.
VRF; vascular endothelial astroglial proliferation.

growth factor; VEGF; SOM175; neuron;

Mus musculus.

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KW as
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CC claim 18; Page 56-57; 107pp; English.

CC W04824-W04831 represent the vascular endothelial growth factor (VEGF) cc proteins of the invention, which promote endothelial or mesodermal cell contents of the invention, which promote endothelial or mesodermal cell proteins of the invention, which promote endothelial or mesodermal cell contents of the invention on the specific biological context in which it is found. VEGF is also a glycosylated cationic dimer, and is contributes to induction on the specific biological context in which it is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of angiogenesis in vivo by promoting endothelial cell growth during normal embryonic development, wound healing, and contist the angiogenic and other properties of VEGF, but are distributed the used to accelerate angiogenesis in wound healing. Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can despressed in tissues differently to VEGF. The proteins can therefore the proteins can be used for inhibiting angiogenesis. The antibodies can also be used diagnostically to quantitatively detect VEGF-B. Primers complementary to the coding sequences for the proteins of the inventignation o
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01-MAR-1996; U02957.

01-MAR-1995; US-397651.

06-JUN-1995; US-469427.

06-DEC-1995; US-599063.
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(UYHE-) UNIV HELSINKI LICENSING
Alitalo K, Eriksson U, Olofssc
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28-APR-1997
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22-FEB 1996; AU0094.
02-MAR-1995; AU-001457.
20-NOV-1995; AU-006647.
22-DEC-1995; AU-007274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-SEP-1996.
22-FEB-1996; AU0094.
22-MAR-1995; AU-001457.
20-NOV-1995; AU-006647.
22-DEC-1995; AU-007274.
(AMRA-) AMRAD OPERATIONS P.
          Claim ii; Page 41: 113pp; English.

Human vascular endothelial growth factor (VEGF)-like polypeptide (W00725) is capable inducing the proliferation of vascular endothelial cells, of interacting with flt-l/fkl-1 receptors, and of inducing cell migration, cell survival and/or an increase in intracellular levels of alkaline phosphatase. It shows 33.3% identity with human VEGF (see also W00724). Splice variants (W00726-28) of SOM175 have also been identified. Recombinant SOM175 can be produced in host cells transformed with vectors carrying SOM175 CDNA (see also T33610). It is useful for inducing astroglial proliferation and for promoting neural survival and/or proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 5; Fig 9: 113pp; English.

VRF186 (W00863) is the murine homologue of human vascular endothel growth factor-like polypeptide SOM175 (W00725), a protein capable inducing astroglial proliferation and of promoting neural survival and/or proliferation. Its amino acid sequence was deduced from a cDNA clone (T13809) isolated from a new-born mouse brain cDNA
                                                                                                                                                                       N-PSDB; T33610.
New growth factor re
useful for inducing
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Similarity 100.0%;
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Pred. No. 6.06e-05;
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VEGF; VEGF165; SOM175; neuron;
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RESULT
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                                                                                                                                                                                                                                                                                                                 PT Vascular endothelial growth factor VEGF-B proteins - useful to PT accelerate anglogenesis in wound healing, also related nucleic acid PT and antibodies for cancer diagnosis

SC Claim 18; Page 62; 10/pp; English.

CC W04824-W04831 represent the vascular endothelial growth factor (VEGF)

CC proteins of the invention, which promote endothelial or mesodermal cell

CC proliferation. VEGF is also a glycosylated cationic dimer, and is

CC diverse effects, depending on the specific biological context in which it

CC cintributes to induction of anglogenesis in vivo by promoting endothelial

CC centributes to induction of anglogenesis in vivo by promoting endothelial

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CC centributes to induction of anglogenesis in vivo by promoting endothelial

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CC contributes to induction of anglogenesis in vivo by promoting endothelial

CC contributes to induction of anglogenesis in vound healing, and

CC contributes to induction of anglogenesis in wound healing. Antibodies

CC complementary to the coding sequences of VEGF. The proteins can therefore

CC complementary to the coding sequences for the proteins of the invention

CC complementary to the coding sequences for the proteins of the invention of

CC wetastatic risk. VEGF-B expression in a cell can be retarded using

CC centerions of the invention of veget expression in tumour cells.
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IT 13
W04830; standard: Protein; 207 AA.
W04830;
28-APR-1997 (first entry)
Vascular endothelial growth factor-B186.
Endothelial cell; proliferation; vascular
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Endothelial cell; proliferation; vascular endothelial growth factor; VPF; 
VBGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration: 
vascular permeability factor; cell mitogen; anglogenesis; cell growth; 
embryonic development; wound healing; tissue reorganisation; antibody: 
cancer; metastatic risk; tumour cell; mouse.
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(GYHE-) UNIV HELSINKI LICENSING L.
Alitalo K, Eriksson U, Olofsson
WPI; 96-412582/41.
N-PSDB; T37915
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01-MAR-1995; US-397651.
06-JUN-1995; US-469427.
06-DEC-1995; US-569063.
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No. 6.06e-05;
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B, Pajusola
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vascular

endothelial growth factor;

VPF:

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01-MAR-1995; US-397651.
01-MAR-1995; US-397651.
06-JUN-1995; US-469427.
06-DEC-1995; US-569063.
(LUDW-) LUDWIG INST CANCER RES.
(LUDW-) LUDWIG INST CANCER RES.
(UTHE-) UNIV HELSINKI LICENSING LTD OY Alitalo K, Eriksson U, Olofsson B, I WPI; 96-412582/41.
                                                06-JUN-1995; U07283.
06-JUN-1995; WO-U07283.
(HUMA-) HUMAN GENOME SC
Olsen H, Rosen CA, Ho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            accelerate anglogenesis in wound healing, also related nucleic acid and antibodies for cancer diagnosis Claim 18; Page 60-61; 107pp; English.
W04824-W04831 represent the vascular endothelial growth factor (VEGF) proteins of the invention, which promote endothelial or mesodermal ce proliferation. VEGF is also a glycosylated cationic dimer, and is
                   N-PSDB; T44071
                                                                                                                                       WO9639421-A1.
                                                                                                                                                                                         region
                                                                                                                                                                                                                                                         01-SEP-1997 (first entry)
Human vascular endothelial growth factor; hVEGF3; angiogenesis;
Human vascular endothelial growth factor; hVEGF3; angiogenesis;
tumour; inflammation; rheumatoid arthritis; diabetic retinopath
                                                                                                                                                                                                                                                                                                                                             W07611 standard; Protein;
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                                                                                                                                                                                                                                            psoriasis;
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Similarity 100.08;
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human vascular endothelial growth factor
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                                                                                                                                                       /label= PDGF/VEGF_family_signature
/note= "conserved PXCVXXXRCXGCCN motif"
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healing, also related
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B. Pajusola
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                                                                                                                                                                                                                                           antagonist.
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This sequence is that of human vascular endothelial growth factor 3 (YEGF3). The growth factor can be used to stimulate angiogenesis and wound healing, and to promote vascular tissue repair. It can also be used to induce the growth of damaged bone, periodontium or ligament tissue. VEGF3 antagonists can be used to inhibit tumour growth, or to treat diabetic retinopathy, inflammation, rheumatoid arthritis or psoriasis. VEGF3 is structurally related to the PDGF/VEGF family and it includes the conserved signature motif for the family (see features table).
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Similarity 100.0%;
14; Conservative
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                                                                                                                                                                                                                              /note= 'is Phe" ; 341
   stop
486
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47
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72
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29
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26
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71
                                                                                                                                                                                     /note= 'is His"
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                     /note= "residue 435 corresponds
stop codon in reading frame 2 of
                                                                                                                                                                                                                                                                                                                                                                                                                                    /note-
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stop codon in reading frame 2 of F
                                                                                                 /note=
                                                                                                                                                     note-
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. No. 6.06e-05;
Mismatches 0;
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ing frame 2 of F
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ing frame 2 of F
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PT Nucleotide molecule encoding c-Fos induced growth factor protein - PT useful in therapy, in manufacture of compositions for treatment of PT developmental disorders and in generation of transgenic animal PS Claim 3; Fig 2; 64pp; English.

CC sequences of reading frames 1, 2 and 3 of clone HF175 (T62961), the human homologue of murine clone F0401 (T62960), which codes for a company comp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-SEP-1996; IB1113.
29-SEP-1995; GB-019928.
13-JUN-1996; GB-012368.
(UYSI-) UNIV SIENA.
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N-PSDB: T62961.
Sequence
                              research.
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stop codon in reading frame 2 of HF175"
608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "residue 579 corresponds to an in-frame stop codon in reading frame 2 of HF175" 592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "residue 562 corresponds to an in-frame stop codon in reading frame 2 of HF175" 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "residue 553 corresponds to an in-frame
stop codon in reading frame 2 of HF175"
557
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597
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593
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                stop
541
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           stop codon in reading 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "residue 608 corresponds to an in-frame
stop codon in reading frame 2 of HF175"
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stop codon in reading frame 2 of HF175"
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stop codon in reading frame 2 of HF175"
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stop codon in reading frame 2 of HF175"
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stop codon in reading frame 2 of HF175"
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Query Match
Best Local Similarity
Matches 10; Conser

83.5%; larity 76.9%; Conservative

Score 101; DB 22; Pred. No. 5.63e-03; 2; Mismatches 1

Length 620; Indels

0

Gaps

0

Š 밁 214 69 ppcvnvercggcc 226 PSCVTVQRCGGCC = 82

Search completed: Thu Nov 26 00:00:19 1998 Job time: 28 secs.

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MPsrch_nn n.a. - n.a. database search, using Smith-Waterman algorithm

Tabular output not generated. Run on: Tue Dec 1 11:43:00 1998; MasPar time 893.19 Seconds 1335.277 Million cell updates/sec

Description:
Perfect Score:
N.A. Sequence:
Comp: Title: >US-09-033-662-1 (1-666) from US09033662.seq 666

1 ATGAGAAGGTGTAGAATAAG......GCCGGAAGGTGCGAAGGTGA 666
TACTCTTCCACATCTTATTC......CGGCCTTCGACGCTTCCACT

Scoring table: TABLE default Gap 6

Nmatch STD : Dbase 0; Query 0

Searched: 2275026 seqs, 895388244 bases x 2

Post-processing: Minimum Match 0% Listing first 45 summaries

emb1-est55

Database:

1:em_est1 2:em_gss1 3:em_gss2 4:em_gss3

genbank-est107
5:gb_est1 6:gb_est10 7:gb_est11 8:gb_est12 9:gb_est13
10:gb_est14 11:gb_est15 12:gb_est16 13:gb_est17
14:gb_est18 15:gb_est19 16:gb_est2 17:gb_est20
18:gb_est21 19:gb_est3 20:gb_est4 21:gb_est5 22:gb_est6 23:gb_est7 24:gb_est8 25:gb_est9 26:gb_gss1 27:gb_gss2 28:gb_gss3 29:gb_gss4

Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Mean 10.628; Variance 2.514; scale 4.228

Result	Score	Query Match	Query Match Length DB	BB	ID	Description		Pred. No.
<u></u>	401	60.2	- 1	œ	AA292448	zt29f01.rl Soares	Soares ovar	0.00e+00
2	373	56.0	415	24	AA310070	EST180930 Jurkat T-cel	urkat T-cel	0.00e+00
w	292			σ	AA434485	zw31a04.r1	Soares ovar	0.00e+00
4	253			18	AI174183	•	Soares mous	0.00e+00
u	221	33.2		16	н39505	yo54all.rl	Homo sapien	0.00e+00
ō	218	32.7		16	R90829	yn02g09.rl	Homo sapien	0.00e+00
7	209			18	AI155033	. r1	Soares mous	0.00e+00
<b>œ</b>	192	28.8		17	AI117413	ub78g01.r1	Soares mous	4.53e-273
9	161			23	AA073660	.r1	Stratagene	1.66e-219
10	154	23.1		11	AA082818	zn25d01.r1	Stratagene	1.68e-207
11	132	19.8		21	AA040843	•	Soares preg	4.84e-170
12	121	18.2	374	22	AA182397	zp36a04.rl	Stratagene	1.68e-151
13	120	18.0	231	23	AA117672	1	Stratagene	8.00e-150

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4 4	43	42	41	40	39	3 8	37	<b>ω</b>	<b>3</b> 5	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	
	39	40	6	41	41	41	42	43	43	43	43	43	45	47	48	51	52	53	<b>5</b>	56	63	66	66	74	76	81	109	112	116	118	
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303 611	285	321	149	320	301	171	251	426	326	301	284	281	283	289	247	210	247	469	252	252	490	381	297	493	88	502	566	118	565	225	
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AA252684 AA799651	8	37	AA703302	AA290917	AI186160	AA809010	AA568606	AA465305	AA259024	AA252749	1431	2383	1141	3	54458	10867	54458	3530	54459	54459	41539	73557	630	34389	~	366	133	910	AA633535	₽-	
	6h07.s1 NCI_CGAE	.s1 Stratagene	Human Fetal	.r1 NCI_CGAP_G	.x1 Soares_	rl NCI_CGAF	.sl NCI_CGA	24b04.r	s35dll.rl NCI_CGAP_	s26b07.rl NCI_CGAP_	.rl NCI_CGAP_	.r1 NCI_CGAP_	'.rl NCI_CGAP_	Fetal heart, L	4 Rice Imm	Soa	Rice Immatur	. Soa	?ice	Rice Imma	z	. Stratage	Homo sa	104.sl Soares ova	h05.sl NCI_CGAP_K	08g12.s1 Soares p	51f06.s1 NCI_CG	4a01.rl Soares c	d06.s1 NCI_CGAP_	63	
1.89e-22 1.89e-22	.890	. 3 i e.	.31و	560	.560-	. ვრი-	.480	.04€	.04e-	.04e-	.04e-	.04e-	.34e	.33e	. 8.≅⊙.	.12e	.230	.42e	. 34e.	. 34 e - 4	•	.79e-6	.79e-	.47e-7	. () () e - 7	.08e-8	.86e-13	.90e-13	4.00e-143	.80e-14	

#### ALIGNMENTS

FEATURES Source	TITLE JOURNAL COMMENT	REFERENCE AUTHORS	ACCESSION NID KEYWORDS SOURCE ORGANISM	RESULT 1 LOCUS DEFINITION
Contact: Wilson RK Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108 Tel: 314 286 1800 Fax: 314 286 1810 Email: est@watson.wustl.edu This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Insert Length: 941 Std Error: 0.00 Seq primer: -28m13 rev2 ET from Amersham High quality sequence stop: 425. 1. 445 //organism="Homo sapiens" //note="Organ: ovary; Vector: pT7T3D (Pharmacia) with u modified polylinker; Site_1: Not I; Site_2: Eco RI; I.S.	Holman,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Rifkin,L., Rohlfing,T., Tan,F., Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and Wilson,R. WashU-Merck EST project Unpublished (1995)	Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  1 (bases 1 to 445)  Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M.,	AA292448 91940468 EST. human human Homo sapiens	AA292448 445 bp mRNA EST 08-AUG-1997 zt29f01.rl Soares ovary tumor NbHOT Homo sapiens cDNA clone 723769 5' similar to TR:G1216396 G1216396 VEGF RELATED FACTOR ISOFORM VRF186 PRECURSOR. ;, mRNA sequence.

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Roller, Kerlavage, A.R., Fleischmann, R.D., Fuldner, R.A., Adams, M.D., Kerlavage, A.R., Fleischmann, R.D., Fuldner, R.A., Bult, C.J., Lee, N.H., Kirkness, E.F., Weinstock, K.G., Gocayne, J.D., White, O., Sutton, G., Blake, J.A., Brandon, R.C., Man. Wai, C., Clayton, R.A., Cline, T.R., Cotton, M.D., Earle-Hughes, J., Fine, L.D., Clayton, R.A., Cline, T.R., Cotton, M.D., Earle-Hughes, J., Fine, L.D., Fitzgerald, L.M., Fitzhugh, W.M., Fritchman, J.L., Geoghagen, N.S., Glodek, A., Gnehm, C.L., Hanna, M.C., Hedblom, E., Hinkle, P.S.Jr., Glodek, A., Gnehm, C.L., Hanna, M.C., Hedblom, E., Hinkle, P.S.Jr.,
                                                                                                                                                                                         AA310070
g1962419
EST.
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Vertebrata;
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/clone="723769"
/clone_lib="Soares ovary
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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            CGGGGCTTAGAGCTNAACCCAGACACCTGNAGGTGCCGGAAGCTGCGAAGGTGA 413
                                                                                          CCTGACCCCGGACCTNNCGCTGCCGCTGCCGACGNCGCAGCTTCCTCCGTTGCCAAGGG
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l Similarity 95.4%;
395; Conservative
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For clone availability, additional sequence and expression
information related to this EST, please check the TIGR Human
Index (http://www.tigr.org/tdb/hg1/hg1.html)
Seq primer: M13 Reverse.
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Fax: 3018699423
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Contact: Kerlavage, AJ
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/clone_lib="Jurkat T-cells V
/cell_type="T-lymphocyte"
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Hiller,L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jos', Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M., Martin,J., Moore,B., Schellenberg,K., Steptoe,M., Tan,F., Theising,B., Walte,Y., Walle,T., Waterston,R. and Wilson,R. WashU-Merck EST Project 1997
Unpublished (1997)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.llnl.gov) for further i
Seq primer: -28mi3 rev2 ET from Amersham
High quality sequence stop: 470.
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WashIngton University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO
Tel: 314 286 1800
Fax: 314 286 1810
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Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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Similarity 98.7%;
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1 (bases 1 to 389)

Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque, Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
Washington University School of MedicineP
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Eukaryota; Metazoa;
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This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
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Tel: 314 286 1800
Fax: 314 286 1810
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The WashU-HHMI Mouse EST Project
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/strain="C57BL/6J"
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4444 Forest Park Parkway, Box 8501, St. I
Tel: 314 286 1800
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Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman, M., Hulman, M., Kucaba, T., Le, M., Lennon, G., Marra, M. Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F., Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and
                                                                                                    High quality sequence stops: 314
Source: IMAGE Consortium, LLNL
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.llnl.gov) for further:
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Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman, M., Hultman, M., Kucaba, T., Le, M., Lennon, G., Marra, M. Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F., Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and
                                                                               Contact: Wilson RK
WashU-Merck EST Project
WashIngton University School of Medicine
4444 Forest Park Parkway, Box 8501, St. 1
High quality sequence stops: 207
Source: IMAGE Consortium, LLNL
This clone is available royalty-free
                                                                                                                                                            The WashU-Merck EST Unpublished (1995)
                                            Email: est@watson.wustl.edu
                                                           Tel: 314 286 1800
Fax: 314 286 1810
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JOURNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACATCACCCAATCCCACTCCAGCCCCAGGCCCCTCTGCCCACGCTGCACCCAGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AI155033 491 bp mRNA IST 30-SEP-1998 ud78bl1.rl Soares mouse mammary gland NMLSG wus musculus cDNA clone 1476957 5' similar to TR:064290 Q64290 VASCULAR ENDOTHELIAL GROWTH FACTOR RELATED PROTEIN ; mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       233;
                                                                                                                                                                                                                                                                                                                                    WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dub
Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M.,
Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B.
Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                              Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL ;
                                                                                                                                                                                                                                                                                                                                                                                              Contact: Marra M/Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                      The WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Vertebrata; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (bases 1 to 491)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
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                                                                                                                                                                                                                                            IMAGE Consortium (info@image.llnl.gov)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            house mouse
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314 286 1810
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llarity 97.5%;
Conservative
/note="vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; 1st strand cDNA was prepared from mammary gland tissue from a lactating female, and was then primed with a Not I oligo(dT) primer. Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT7T3 vector. Library is normalized. Library was constructed by Bento Soares and M. Fatima Bonaldo."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/clone="167296"
<1. .>312
                                                                                                                                                   /organism-"Mus musculus"
                                                                                                                                                                                    Location/Qualifiers
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Pred. No. 0.00e+00
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                                                                                                                                                                                                                                                                                                                                         Louis,
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JOURNAL COMMENT
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ORIGIN
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AUTHORS
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ORGANISM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 179 ACCTGCCGCTGCCGCTGCAGACGCCGCCGCTTCCTCCATTGCCAAGGCNGGGGCCTTAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               119 TCCAGCCCCAGGGTCCTCTGCCCGCCTTGCACCCAGCGCCGTCAACGCCCTGACCCCCGG
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AI117413 g3517737
                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
Eukaryota; Metazoa; Chordata; Vertebrata; Mammalia; Eutheria:
Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (bases 1 to 410)
Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuq
Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M.,
Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B.,
Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
                                                                                                                                                                      Tel: 314 286 1800
Fax: 314 286 1810
Email: mouseest@watson.wustl.edu
This Clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                    WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
                                                                                                                                                                                                                                                                                                                                   Contact: Marra M/Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                        The WashU-HHMI Mouse EST Project Unpublished (1996)
                                                                                                                                                          MGI:906356
                                                                                                                                                                                                                                                                                                                                                                                                                   Waterston,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            house mouse
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                                                                                                                    quality sequence
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ilarity 88.7%;
Conservative
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/clone="1476957"
/clone_lib="Soares mouse mammary gland NMLMG"
/sex="female (lactating)"
/tissue_type="mammary gland"
/lab_host="DH10B"
/note="Vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; 1st strand cDNA was prepared from mammary gland tissue from a lactating female, and was then pr
                                                           /organism="Mus musculus"
                                                                                               ocation/Qualifiers
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Pred. No. 0.00e+00;
0; Mismatches 30;
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REFERENCE
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ORIGIN
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
Eukaryotae; m
Vertebrata; E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence.
                     This clone is available royalty-free through LLNL; IMAGE Consortium (info@image.llnl.gov) for further: MGI:323058
Seq primer: -28ml3 rev1 ET from Amersham
                                                                                                                                                             WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA073660 423 bp mRNA EST 15-FEB-mm94g06.rl Stratagene mouse heart (#937316) Mus musculus 536122 5' similar to TR:G1314336 G1314336 MVRF167. ;, mRN
                                                                                                                        Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                    The WashU-HHMI Mouse 
Unpublished (1996)
                                                                                                                                                                                                                                                                                                                              Marra, M., Hillier, L., Allen, M., Bowles, M., Districh, N., Dub
Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M.,
Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, J.
Theising, B., Wylie, T., Lennon, G., Soares, B., Wilson, R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity 89.9%; 222; Conservative
                                                                                                                                                                                                                           Contact: Marra M/Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g1595394
                                                                                                  Email: mouseest@watson.wustl.edu
                                                                                                                                                                                                                                                                                                               Waterston, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       house mouse
                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 423)
primer: -28m13 rev1 ET from Amersham
h quality sequence stop: 411.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone_lib="Soares mouse mammary
/sex="female (lactating)"
/tissue_type="mammary gland"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                        mitochondrial eukaryotes; Metazoa; Chordata; Eutheria; Rodentia; Sciurognathi; Muridae; M
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Pred. No. 4.53e-273;
0; Mismatches 24;
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This clone is available royalty-free through LLNL; contact the

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                                                                                                                                                                                  Eukaryotae; Metazoa; Chordata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 553)

Hillier_L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman, M., Hultman, M., Kucaba, T., Le, M., Lennon, G., Marra, M., Parsons, J., Rifkin, L., Rohlfing, T., Tan, F., Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and Wilson, R. Washu-Marck EST Project Unpublished (1995).
                                                                                                                                                                                                                                                                                                                                                                                                                              AA082818 553 bp mRNA EST 23-DEC-1997 zn25d01.rl Stratagene neuroepithelium NT2RAMI 937234 Homo sap cDNA clone 548449 5' similar to TR:01216398 G1216398 VEGF RFL FACTOR ISOFORM VRF167 PRECURSOR. ;, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ch 24.2%;
l Similarity 95.6%;
174; Conservative
Email: est@watson.wustl.edu
WARNING: There is evidence that suggests that the
plate of this clone contains both human and mouse
Thus, the origin of this clone is uncertain. This
kept in mind should you use this clone.
                                                                                 Washington University School of Medicine 4444 Forest park Parkway, Box 8501, St. I Tel: 314 286 1810
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                              Homo sapiens
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/strain="NIH/Swiss"
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Pred. No. 1.66e-219;
0; Mismatches 7;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      164;
                                                      Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Seq primer: -28M13 rev2 from Amersham
High quality sequence stop: 314
                                                                                                                                                                                                                                                                                                                                                                  Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 523)
Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman, M., Hultman, M., Kucaba, T., Le, M., Lennon, G., Marra, M. Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F., Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and
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4860015', mRNA sequence.
AA040843
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Location/Qualifiers
                                                                                                                                                                                                    Contact: Wilson RK
WashU-Merck EST Project
Washington University Scho
4444 Forest Park Parkway,
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Unpublished (1995)
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Similarity 95.3%;
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/db_xref="taxon:9606"
/db_xref="taxon:9606"
/clone="548449"
/clone_1ib="Stratagene neuroepithelium NT2RAMI 937234"
/dev_stage="Ntera-2/RA+MI neuroepithelial cells"
/dev_stage="Ntera-2/RA+MI neuroepithelial cells"
/dev_stage="SOLR (kanamycin resistant)"
/lab_nost="SOLR (kanamycin resistant)"
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/organism-"Homo sapiens
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                                                                                                                                                                                                    School of Medicine way, Box 8501, St. 1
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Homo sapiens cDNA clone
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Hillier,L., Clark,N., Dubugue,T., Elliston,K., Hawkins,M., Holman,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra, Parsons,J., Rifkin,L., Rohlfing,T., Tan,F., Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and Wilson,R. WashU-Merck EST Project Unpublished (1995)
                                                                                                      rel: 314 286 1800
Fax: 314 286 1810
Email: estevatson.vustl.edu
This clone is available royalty-free through LLNL; contact the
TMAGE Consortium (info@image.llnl.gov) for further information.
Seq primer: -28M13 rev2 from Amersham
High quality sequence stop: 237.
Location/Qualifiers
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4444 Forest Park Parkway,
                                                                                                                                                                                                                                                                                                                      Contact: Wilson RK
WashU-Merck EST Project
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/organism="Homo sapiens"
/note="Vector: pBluescript SK-; Site_1: EcoRI; Site_XhoI; Cloned unidirectionally. Primer: Oligo dT. Sk muscle from patient with malignant hyperthermia. Av
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not and Eco RI sites of the modified p7773 vector. Library went through one round of normalization. Library constructed by M. Fatima Bonaldo."

/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /dev_stage="adult"
/lab_host="DH10B"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone_lib="Soares pregnant uterus NbHPU"
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Pred. No. 4.84e-170;
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                                                                                                                                                                                                                                                                             School of Medicine way, Box 8501, St.
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                                                                                                                                                                   Seq primer: -28m13 rev1 ET from
High quality sequence stop: 222.
Location/Qualifiers
                                                                                                                                                                                                                                     Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.llnl.gov) for further
                                                                                                                                                                                                                                                                                                                              COntact: Marra M/Mouse EST project
WashU-HHMI Mouse EST Project
Washington University School of Medicinep
4444 Forest Park Parkway, Box 8501, St. Lc
                                                                                                                                                                                                                                                                                                                                                                                                                                       Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque, Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylle,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.

Waterston,R.

WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence.
AA117672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA117672 231 bp mRNA EST 15-1 mo61a06.rl Stratagene mouse Tcell 937311 Mus musculus 558034 5' similar to TR:G1314336 G1314336 MVRF167. ;,
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Vertebrata; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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larity 95.8%;
Conservative
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CTCGACTTTTTTTTTTTTTTTTTTT 3'"
/db_xxef="taxon:9606"
/clone="f61502"
/clone_lib="Stratagene muscle 937209"
/dev_stage="adult"
/lab_host="SOLR (kanamycin resistant)"
/lab_nost="SOLR (kanamycin resistant)"
/lab_nost="SOLR (solution resistant)"
/lab_nost="SOLR (solution resistant)"
/lab_nost="SOLR (solution resistant)"
/lab_nost="SOLR (solution resistant)"
 /note-"Vector: pBluescript SK-; Site_1: EcoRI; Site_2: XhoI; Cloned unidirectionally. Primer: Ollyo dT. M30 CD4+ cells. Average insert size: 1.0 kb; Uni-ZAP XR Vector; -5; adaptor sequence: 5' GAATTCGGCACGAG 3' -3' adaptor sequence: 5' CTCCACTTTTTTTTTTTTTTTTTTT 3'" /db_xref="faxon:10090"
                                                                                                                               organism="Mus musculus"
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sequence: 5' GAATTCGGCACGAG 3' ~3' adaptor sequence:
CTCGAGTTTTTTTTTTTTTTTT 3'"
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L.68e-151;
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Best Local Similarity
Matches 138; Conser
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SOURCE ORGANISM

ACCESSION KEYWORDS

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631 CCAGACACCTGCAGGTGCCGGAAGCTGCGAAGGTGA
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                                                                                                                                                                                                                     ACGCCGCAGCTTCCTCCGTTGTCAAGGGCGGGGCTTAGAGCTCAACCCAGACACCTGCAG
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Eucaryotae; Metazoa; Chordata; Vertebrata;
Eutheria; Primates; Catarrhini; Hominidae;
1 (bases 1 to 225)
                                                                                                                                                                                                                                                                                                                                                                                                                                                        The Institute for Genomic Research
932 Clopper Road, Gaithersburg, MD
Tel: 3018699056
Fax: 3018699423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Adams,M.D., Soares,M.B., Kerlavage,A.R., Fields,C. and Rapid cDNA sequencing (expressed sequence tags) from a directionally cloned human infant brain cDNA library Nature Genet. 4, 373-380 (1993)
                                                                                                                                                                                                                                                                    h 17.7%;
Similarity 94.0%;
125; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human clone=HIBBD88 library=Infant
                                                                                                                                                                                                                                                                                                                                                                                                                       mdadams@tigr.org.
Location/Qualifiers
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/clone="HIBBD88"
75 c 66 g 3
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/dev_stage="M30 CD4+ cells"
/lab_host="SOLR (kanamycin resistant)"
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a 85 c 65 g 37 t
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Pred. No. 1.80e-146;
0; Mismatches 8;
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Mismatches 18;
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Best Local Similarity 91.4%;
Matches 128; Conservative
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                                                                                  539 GTGGTGCTGGGTGCAGCGTG 558
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    GTGGTGCTGGGTGCAGCGTG 527
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Insert Length: 648 Std Error: 0.00. Seq primer: -40ml3 fwd. ET from Amersham High quality sequence stop: 411.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDNA Library Preparation: M. Bento Soares, Ph.D. CDNA Library Arrayed by: Greg Lennon, Ph.D. DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: www-blo.llnl.gov/bbrp/image/image.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: Robert_Strausberg@nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.
Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Robert Strausberg, Ph.D. Tel: (301) 496-1550
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National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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/note="Vector: pT7T3D-Pac (Pharmacia) with a modified
/note="Vector: pT7T3D-Pac (Pharmacia) with a modified
/note="Vector: pT7T3D-Pac (Pharmacia) with a modified
polylinker; 1st strand cDNA was prepared from pooled bulk
breast tumor tissue, and was then primed with a Not I -
oligo(dT) primer. Double-stranded cDNA was ligated to Eco
RI adaptors (Pharmacia), digested with Not I and cloned
into the Not I and Eco RI sites of the modified p7T3
vector. This library is the normalized version of
NCI_CGAP_Br1.1. Library was constructed by Bento Soares
and M. Fatima Bonaldo.
/db_xref="taxon:9606"
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/clone="IMAGE:1131275"
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/clone="Tremale, pooled"
/tissue_type="breast"
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Search completed: Tue Dec 1 12:22:18 1998 Job time: 2358 secs.

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Release 3.1A John F. Collins, Biocomputing Research Copyright (c) 1993-1998 University of Edinburgh, U. Distribution rights by Oxford Molecular Ltd

MPsrch_nn ກ. ຜ. n.a. database search, using Smith-Waterman algorithm

Run on:

Title: Tabular output not generated >US-09-033-662-1 (1-666) from US09033662.seq 666 Tue Dec 1 12:22:37 1998; MasPar time 99.63 Seconds 909.455 Million cell updates/sec

Description: Perfect Score: N.A. Sequence: Scoring table: comp: Gap TABLE σ 1 ATGAGAAGGTGTAGAATAAG..... default TACTCTTCCACATCTTATTC.....

.GCCGGAAGCTGCGAAGGTGA 666

188442 segs, 68026449 bases ×

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Nmatch

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Dbase 0;

Query 0

Post-processing: Minimum Match 0% Listing first 45 summaries

-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
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19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29 30:part30 31:part31 32:part37 38:part33
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39:part39 40:part40

Statistics: Mean 8.606; Variance 5.714; scale 1.506

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Human vascular endothelial growth factor 3 cDNA.
Human vascular endothelial growth factor; hVEGF3; angiogenesis;
Human vascular endothelial growth factor; hVEGF3; angiogenesis;
tumour; inflammation; rheumatoid arthritis; diabetic retinopathy;
psoriasis; bone; periodontium; ligament; antagonist; ss.
                                                                                                                                                                                                                                   DNA encoding human vascular endothelial growth factor 3 - useful to develop prods for, e.g. stimulating angiogenesis or treating tumours, inflammation or rheumatoid arthritis Claim 1; Page 43; 56pp; English.

This sequence encodes human vascular endothelial growth factor 3 (YEGF3). The growth factor can be used to stimulate angiogenesis and wound healing, and to promote vascular tissue repair. It can also be used to induce the growth of damaged bone, periodontium or ligament tissue. VEGF3 antagonists can be used to inhibit tumour growth, or the treat diabetic retinopathy, inflammation, rheumatoid arthritis or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (HUMA-) HUMAN GENOME SCI INC.
Olsen H, Rosen CA, Hu JS;
WPI; 97-043056/04.
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22-FEB-1996; AU-001457.
02-MAR-1995; AU-006647.
20-NOV-1995; AU-007274.
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Vascular endothelial growth f
astroglial proliferation; ss.
Homo sapiens.
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rs survival
rs claim 32; Page 39-40; 113pp; English.

Country codes for a human vascular endothelial growth
controlled (73610) codes for a human vascular endothelial growth
controlled (7067)-like polypeptide (700725) capable of inducing
castroglial proliferation and of promoting neural survival and/or
controlled proliferation and of promoting neural series
controlled proliferation
controlled promoting neural survival and/or
controlled promoting neural survival and/o
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WPI; 96-412774/41.
P-PSDB; W00725.
New growth factor rel
useful for inducing a
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Local Similarity 99.2%;
les 614; Conservative
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Pred. No. 0.00e+00;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PT accelerate anglogenesis in wound healing, also related nucleic acid process in the coding sequences for the vascular endothelial process. In wound healing, also related nucleic acid process for cancer diagnosis. Claim 1: Page 61-62: 107pp; English.

CC 137999-T37915 represent the coding sequences for the vascular endothelial crimesory. Proteins of the invention, which promote endothelial crimesory. Proteins of the invention, which promote endothelial crimesory. Proteins of the invention, which promote endothelial crimesory. Proteins a glycosylated cationic context in which it is found. WEGF is also a glycosylated cationic context in which it is found. WEGF is also a glycosylated cationic context in which it is found. WEGF is a potent endothelial cell mitogen, and directly contributes to induction of anglogenesis in vivo by contributed and tissue regeneration/reorganisation. The VEGF proteins cof the invention share the angiogenic and other properties of VEGF, but created and expressed in tissues differently to VEGF but a redistributed and expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate anglogenesis in wound cannot be used for inhibiting angiogenesis. The antibodies can also be used diagnostically to vEGF-B coding sequences. Quantification of VEGF-B in cancer biopsy complements the vEGF coding sequences. Quantification of wegf-B in cancer biopsy complements the vEGF coding sequences, and indicator of metastatic risk. VEGF-B coding sequences for the invention can be used in retarding vegences for tumour cells. 235 C; 179 G; 104 T;
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Best Local s
Matches 56
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01-MAR-1995; US-397651.
06-JUN-1995; US-397651.
06-JUN-1995; US-3690427.
06-DEC-1995; US-569063.
(LUDW-) LUDWIG INST CANCER RES.
(LUDW-) LUDWIG INST CANCER RES.
(LUDW-) UNIV HELSINKI LICENSING LTD OY.
Alitalo K, Eriksson U, Olofsson B, H
WPI; 96-412582/41.
P-PSDB; W04831.
Vascular endothelial growth factor VEGI
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VEGF-B186 coding sequence.
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                        agaacacagccagtgtgaatgcagacctaaaaaaaaggacagtgctgtgaagccagacag 410
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Pred. No. 0.0
0; Mismatch
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A. Pajusola ו
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Matches 55
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02-MAR-1995; I
20-NOV-1995; I
22-DEC-1995; I
                                           Example 5; Fig 9; 113pp; English.

WRF186 cDNA (T13809) codes for the murine homologue (W00863) of human vascular endothelial growth factor-like polypeptide SOM175 (W00725), a protein capable of inducing astroglial proliferation and of promoting neural survival and/or proliferation. It was obtd. from a new-born mouse brain cDNA library using SOM175 cDNA (see also T33610) as probe. The murine VRF gene maps near to the centromere of chromosome 19. It is highly expressed in embryo tis and in the heart and brown fat of adult mice. An alternatively spliced variant, VRF169 (T13810), was also identified.

Sequence 1242 BP; 272 A; 409 C; 333 G; 228 T;
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Murine VRF186 cDNA.
VRF; vascular endothelial growth factor; VEGF; SOM175; neuron; astroglial proliferation; ss.
                                                                                                                                                                                                        WPI; 96-412774/41.
P-PSDB; W00863.
New growth factor:
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T13809;
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 72.5%;
l Similarity 89.7%;
551; Conservative
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; AU-006647.
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AD OPERATIONS
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/note= "polymorphic &
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Larsson
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Score 483; DB 23;
Pred. No. 1.74e-285;
0; Mismatches 62;
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DT 28-APR-1997 (first entry)
DE VEGF-B186 coding sequence.

KW Endothelial cell; proliferation; vascular endothelial growth factor; VPF;

KW VEGF: endothelium; mesodermal cell; cationic dimer; tissue regeneration;

KW vascular permeability factor; cell mitogen; angiogenesis; cell growth;

KW embryonic development; wound healing; tissue reorganisation; antibody;

KW cancer; metastatic risk; tumour cell; mouse; ss.

OS Mus musculus.

OS Mus musculus.

PN W09626736-A1.

PO 01-MAR-1995; US-397651.

PR 01-MAR-1995; US-397651.

PR 01-MAR-1995; US-469427.

PR 06-DEC-1995; US-469427.

PR 06-DEC-1995; US-469427.

PA (LUDW-) LUDWIG INST CANCER RES.

PA (LUDW-) LUDWIG INST CANCER RES.

PA Alitalo K, Eriksson U, Olofsson B, Pajusola K;

PR WPI; 96-412582/41.
          TRESULT AND THE STATE OF THE ST
vascular endothelial growth factor VEGF-B proteins - useful to accelerate angiogenesis in wound healing, also related nucleic acid and antibodies for cancer diagnosis Claim 1; Page 60; 107pp; English. 737909-T37915 represent the coding sequences for the vascular endothelial growth factor (VEGF) proteins of the invention, which promote endothelial or mesodermal cell proliferation. VEGF is also a glycosylated cationic dimer, and is sometimes referred to as vascular permeability factor
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T37913 standard; cDNA; 570 BP.
T37913;
28-APR-1997 (first entry)
Endothelial cell; prollferation; vascular endothelial growth Endothelial cell; prollferation; vascular endothelial growth VEGF; endothelium; mesodermal cell; cationic dimer; tissue revascular permeability factor; cell mitogen; anglogenesis; cel embryonic development; wound healing; tissue reorganisation;

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cc (VPF). VEGF has diverse effects, depending on the Special CC context in which it is found. VEGF is a potent endothelial cell mitogen, CC and directly contributes to induction of anylogenesis in vivo by CC promoting endothelial cell growth during normal embryonic development, wound healing, and tissue regeneration/reorganisation. The VEGF proteins CC of the invention share the angiogenic and other properties of VEGF, but are distributed and expressed in tissues differently to VEGF. The CC proteins can therefore be used to accelerate angiogenesis in wound CC healing. Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can also be used diagnostically to quantitatively detect VEGF. B. Primers complementary to the coding sequences for the proteins of the invention can also be used to detect VEGF-B coding sequences. Quantification of VEGF-B in cancer biopsy can section as an indicator of metastatic risk. VEGF-B coding sequences, this is especially useful in retarding coverness may be useful as an indicator. Secuence of the vege coding sequences, this is especially useful in retarding sequence 624 BP; 124 A; 213 C; 173 G; 114 T;
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.larity 89.5%;
Conservative
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Pred. No. 4.71e-261;
0; Mismatches 59;
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N WO9626736-Al.

PO 06-SEP-1996.

PO 06-SEP-1995; U02957.

PF 01-MAR-1995; US-397651.

PR 06-DUN-1995; US-469427.

PR 06-DEC-1995; US-569063.

PA (LUDW-) LUDWIG INST CANCER RES.

PA (LUDW-) LUDWIG INST CANCER RES.

PA (LYHE-) UNIV HELSINKI LICENSING LTD OY.

PI Alitalo K, Eriksson U, Olofsson B, Pajusola K;

PI Alitalo K, Eriksson U, Olofsson B, Pajusola K;

PF Naturalo K, Eriksson U, Olofsson B, Pajusola K;

PF VAScular endothelial growth factor VEGF-B proteins - useful to

PT Vascular endothelial growth factor VEGF-B proteins - useful to

PT Vascular endothelial growth factor VEGF-B proteins - useful to
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Claim 1; Page 58-59; 107pp; English.

CC 373909-737915 represent the coding sequences for the vascular endothelial crown that factor (VEGF) proteins of the invention, which promote endothelial crown that it is sometimes referred to as vascular permeability factor (VPF). VEGF has diverse effects, depending on the specific biological context in which it is found. VEGF is a potent endothelial cell mitogen, can directly contributes to induction of angiogenesis in vivo by commoting endothelial cell growth during normal embryonic development, contains the invention share the angiogenic and other properties of VEGF, but are distributed and expressed in tissues differently to VEGF. The coffing can therefore be used to accelerate angiogenesis in wound healing. Antibodies against the proteins can be used for inhibiting can thiosens against the proteins can be used for inhibiting cannotiang. Antibodies can also be used diagnostically to generate so the coding sequences for the proteins can be used for inhibiting cannotiatively detect VEGF-B. Primers complementary to the coding sequences of the invention can also be used to detect vEGF-B coding sequences. Quantification of VEGF-B in cancer blopsy complements and process of the invention can also be used to detect vEGF-B coding sequences, this is especially useful in retarding complements.

CC Sequences for it tumour cells.
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T33612;
30-NOV-1996 (fir
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                                                                                                                                  agaacacagccagtgtgaatgcagacctaaaaaaaaggacagtgctgtgaagccagacag
                                                                                                                                                                                  ccggatgcagatcctcatgatccggtacccgagcagtcagctgggggagatgtccctgga
                                                                                                              AGAACACAGCCAGTGTGAATGCAGACCTAAAAAAAAAGGACAGTGCTGTGAAGCCAGACAG
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Similarity 100.0%;
360; Conservative
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                                    CDNA; 858
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       105 A;
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Pred. No. 1.49e-206;
0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         173 G;
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Best Local
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22-FEB-1996; AU0094.
22-MAR-1995; AU-001457.
20-NOV-1995; AU-006647.
22-DEC-1995; AU-007274.
(AMRA-) AMRAD OPERATIONS P
Grimmond S, Hayward NK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
Key
cds
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3 cDNA clones (T33611-13) code for splice variants (W00726-28) of the human vascular endothelial growth factor-like polypeptide SOM175 (see also W00725). They were identified in a human foetal spleen library and respectively lack exon 6, exons 6+7, and exon of the SOM175 gene (see also T33610). The CONA clones can be used to produce recombinant SOM175 proteins that are useful for inducing astroglial proliferation and for promoting neural surviving and/or proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vascular endothelial growth factor-like protein SOM175-e6+e7 cDNA. Vascular endothelial growth factor; VEGF; SOM175-e6+e7; neuron; astroglial proliferation; ss.
                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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New growth factor related to useful for inducing astroglia
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                                                                                                                                                                                                                                                                                          CCCCGCCCAGGCCCTGTCTCCCCAGCCTGATGCCCCTGGCCACCAGAGGAAAGTGGTGTC
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                                                            agaacacagccagtgtgaatgcagacctaaaaaaaaggacagtgctgtgaagccagatag
                                                                                                                                             CTGTGGTGGCTGCCCTGACGATGGCCTGGAGTGTGTGCCCACTGGGCAGCACCAAGT
                                                                                                                                                          AGAACACAGCCAGTGTGAATGCAGACCTAAAAAAAAGGACAGTGCTGTGAAGCCAGACAG
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                      413
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 408
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Similarity 99.7%;
360; Conservative
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Pred. No. 6.49e-206;
0; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                         246 G;
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RESULT 8
ID T3611 standard; cDNA; 993
AC T33611;
DT 30-NOV-1996 (first entry)

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RESULT 9
ID 733613; standard; cDNA; 910
AC 736613;
DT 30-NOV-1996 (first entry)
EV Vascular endothelial growth
KW Vascular endothelial growth
KW astroglial proliferation; so
OS Homo sapiens.
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Best Local S
Matches 35
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06-SEP-1996; AU0094.
22-FEB-1996; AU-001457.
02-MAR-1995; AU-001457.
20-NOV-1995; AU-007274.
22-DEC-1995; AU-007274.
(AMRA-) AMRAD OPERATIONS P
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P-PSDB; W00726.
New growth factor rel
useful for inducing a
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3 cDNA clones (T33011-13) code for splice variants (W00726-28) of the human vascular endothelial growth factor-like polypeptide SOM175 (see also W00725). They were identified in a human foetal spleen library and respectively lack exon 6, exons 6+7, and exon of the SOM175 gene (see also T33610). The cDNA clones can be used to produce recombinant SOM175 proteins that are useful for inducing astroglial proliferation and for promoting neural surviv
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and/or proliferation.
and proliferation.
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Grimmond S, H
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Key
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larity 99.7%;
Conservative
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                                               entry)
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                        growth factor-like protein SOM175-e4 cDNA
growth factor; VEGF; SOM175-e4; neuron;
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                                                                         ВP
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Pred. No. 2.
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factor; VEGF; SOM175-e6; neuron;
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al proliferation and p
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06-SEP-1996.
22-FEB-1995; AU-0094.
02-MAR-1995; AU-001457.
3 20-DCV-1995; AU-006647.
R 22-DC-1995; AU-007274.
R 24-DC-1995; AU-007274.
'AWRA-') AMRAD OPERATIONS PY
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                   28-APR-1997 (first entry)
Adult heart VEGF-B167 coding sequence.
Endothelial cell; proliferation; vascular endothelial growth
VEGF; endothelium; mesodermal cell; cationic dimer; tissue re
vascular permeability factor; cell mitogen; angiogenesis; cel
embryonic development; wound healing; tissue reorganisation;
cancer; metastatic risk; tumour cell; mouse; ss.
                                                                                                 LT 10
T37910
T37910;
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and/or pr
Sequence
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Example
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3 cDNA clones (T33611-13) code for splice variants (W00726-28) of the human vascular endothelial growth factor-like polypeptide SOM175 (see also W00725). They were identified in a human foets spleen library and respectively lack exon 6, exons 6+7, and exon of the SOM175 gene (see also T33610). The CDNA clones can be used to produce recombinant SOM175 proteins that are useful for inducing astroglial proliferation and for promoting neural survices and/or proliferation.
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New growth fact
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                                                                                                              standard;
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303; Conser
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larity 96.8%;
Conservative
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3.308
/*tag= a
3.65
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66.305
/*tag= c
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Pred. No. 1.
0; Mismatc
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ches 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         254 G;
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human foetal
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                                                     regenerat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               survival
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01-MAR-1996; U02957.
01-MAR-1995; US-397651.
06-JUN-1995; US-469427.
06-DEC-1995; US-569063.
30-NOV-1996 (first entry)
Murine VRF167 cDNA.
VRF; vascular endothelial eastroglial proliferation;
                                                          T13810 standard;
T13810;
30-NOV-1996 (fir
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P-PSDB; W04826.
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(UYHE-) UNIV HELSINKI LICENSING LTD
Alitalo K, Eriksson U, Olofsson B,
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larity 90.1%;
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Pred. No. 1.05e-158;
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B. Pajusola '
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growth factor;

VEGF;

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22-FEB-1996; AU0094.

02-MAR-1995; AU-001457.

20-NOV-1995; AU-006647.

22-DEC-1995; AU-007274.

(AMRA-) AMRAD OPERATIONS P
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YRR169 cDNA (T13810) codes for a murine homologue (W00864) of an alternatively spliced variant (W00766) of human vascular endothelial growth factor-like polypeptide SOW175 (see also W00725), a protein capable of inducing astroglial proliferation and of promoting neural survival and/or proliferation. It was obtd. from a new-born mouse brain cDNA library using SOM175 cDNA (see also T33610) as probe. The murine VRF gene maps near to the centromere of chromosome 19. It is highly expressed in embryo tissue and in the heart and brown fat of adult mice. VRF169 lacks exon 6, found in VRF186 cDNA (T13809).

Sequence 1141 BP; 256 A; 361 C; 313 G; 211 T;
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llarity 89.6%;
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Pred. No. 3.66e-156;
0; Mismatches 37;
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CS Claim 1; Page 57; 10/pp; English.

CC growth factor (VEGF) proteins of the invention, which promote endothelial CC growth factor (VEGF) proteins of the invention, which promote endothelial CC or mesodermal cell proliferation. VEGF is also a glycosylated cationic CC (VFF). VEGF has diverse effects, depending on the specific biological CC context in which it is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of angiogenesis in vivo by CC promoting endothelial cell growth during normal embryonic development, CC wound healing, and tissue regeneration/reorganisation. The VEGF but CC are distributed and expressed in tissues differently to VEGF, but CC are distributed and expressed in tissues differently to VEGF, but CC are distributed and expressed in tissues differently to VEGF, but CC are distributed and expressed in tissues differently to VEGF, but CC are distributed and expressed in tissues differently to vEGF, but CC are distributed and expressed in tissues differently to vEGF, but CC are distributed and expressed in tissues differently to vEGF, but CC are distributed and expressed in tissues differently to vEGF. But CC angiogenesis. The antibodies can also be used for inhibiting CC healing. Antibodies against the proteins can be used for inhibiting CC unnitiatively detect VEGF-B. Primers complementary to the coding sequences of the invention can also be used to detect VEGF-B coding sequences. Quantification of VEGF bin cancer biopsy CC expression in a cell can be retarded using antisense sequences direct CC against the VEGF coding sequences, this is especially useful in retarding CC VEGF expression in tumour cells.
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01-MAR-1996; U02957.
01-MAR-1995; US-397651.
06-JUN-1995; US-469427.
06-DEC-1995; US-569063.
(LUDW-) LUDWIG INST CANCER RES.
(LYME-) UNIV HELSINKI LICENSING LTD OY.
Alitalo K, Eriksson U, Olofsson B, Pajusola WPI; 96-412582/41.
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d. No. 9.87e-145;
Mismatches 34;
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PS Claim 1; Page 53; 107pp; English.

CC This represents a fragment of the mouse embryo vascular endothelial CC growth factor-B (VEGF-B) protein coding sequence. The encoded proteins CC (and W0486-W04831) represent the VEGF proteins of the invention, and CC promote endothelial or mesodermal cell proliferation. VEGF is also a CC glycosylated cationic dimer, and is sometimes referred to as vascular CC permeability factor (VPF). VEGF has diverse effects depending on the CC specific biological context in which it is found. VEGF is a potent CC endothelial cell mitogen, and directly contributes to induction of CC embryonic development, wound healing, and tissue CC embryonic development, wound healing, and tissue CC the angiogenesis in vivo by promoting endothelial cell growth during normal CC embryonic and other properties of VEGF, but are distributed and CC expressed in tissues differently to VEGF. The proteins can therefore he CC used to accelerate angiogenesis in wound healing. Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can also be used to detect VEGF-B coding sequences. Quantification of C vEGF B in cancer biopsy specimens may be useful as an indicator of mentation of the VEGF-B expression in a cell can be retarded using.
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06-SEP-1996.
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01-MAR-1995; US-397651.
06-JUN-1995; US-469427.
06-DEC-1995; US-569063.
                                                                                                                                                                                                                                                                                metastatic risk. VEGF-B expression in a cell can be retarded using antisense sequences direct against the VEGF coding sequences, this is especially useful in retarding VEGF expression in tumour cells. Sequence 886 BP; 227 A; 261 C; 226 G; 172 T;
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T37909;
28-APR-1997 (first entry)
Partial VEGF-B coding sequence.
Endothelial cell; proliferation; vascular endothelial
Endothelian mesodermal cell; cationic dimer; ti
VEGF; endothelium; mesodermal cell; cationic and coenes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing,
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(UYHE-) UNIV HELSINKI LICENSING LTD
Alitalo K, Eriksson U, Olofsson B,
WPI: 96-412582/41
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tgtgcagcgctgtgggtggctgccctgacgatggcctggaatgtgtgcccactgggca
                                                                          gcctctgagcatggaactcatgggcaatgtggtcaaacaactagtgcccagctgtgtgac
                                                                                                                                                     agtggtgccatggatagacgtttatgcacgtgccacatgccagcccagggaggtggtggt
                                                    GCCCTTGACTGTGGAGCTCATGGGCCACCGTGGCCAAACAGCTGGTGCCCAGCTGCGTGAC
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                                                                                                                                                                                                                         36.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Second reading
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 First reading frame VEGF-B fragment
                                                                                                                                                                                                    Score 241; DB 28;
Pred. No. 8.55e-131;
0; Mismatches 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ) OY.
B. Pajusola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            frame VEGF-B fragment
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also related
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                                                                                                                                                                                                      Gaps
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               190
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                                                           В
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                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                              PT accelerate anylogenesis in wound healing, also related nucleic acid
PT and antibodies for cancer diagnosis
PS Claim 1; Page 56; 107pp; English.
CC growth factor (VEGF) proteins of the invention, which promote endothelial
CC or mesodermal cell proliferation. VEGF is also a glycosylated cationic
CC dimer, and is sometimes referred to as vascular permeability factor
CC (VPF). VEGF has diverse effects, depending on the specific biological
CC context in which it is found. VEGF is a potent endothelial cell mitogen,
CC and directly contributes to induction of anglogenesis in vivo by
CC promoting endothelial cell growth during normal embryonic development,
CC wound healing, and tissue regeneration/reorganisation. The VEGF proteins
CC of the invention share the angiogenic and other properties of VEGF, but
CC are distributed and expressed in tissues differently to VEGF. The
CC angiogenesis. The antibodies can also be used diagnostically to
CC sequences for the proteins of the invention can be used for inhibiting
CC angiogenesis. The antibodies can also be used diagnostically to
CC specimens may be useful as an indicator of metastatic risk. VEGF-B
CC expression in a cell can be retarded using antisense sequences direct
CC VEGF B coding sequences. Quantification of VEGF-B in cancer biopsy
CC sequence 591 BP; 126 A; 186 C; 174 G; 105 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
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06-SEP-1996.

01-MAR-1995; US-397651.

06-JUN-1995; US-397651.

06-JUN-1995; US-569063.

(LUDW-) LUDWIG INST CARCER RES.

(LUW-) LUDWIG INST CARCER S.

(LUW-) UNIV HELSINKI LICENSING LTD OY.

Alitalo K. Erikson U, Olofsson B, Pajusola K;
WPI; 96-412582/41.
                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Adult heart VEGF-B174 coding sequence. Endothelial cell; proliferation; vascular endothelial growth factor; VPF; Endothelium; mesodermal cell; cattonic dimer; tissue regeneration; vEGF; endothelium; mesodermal cell; cattonic dimer; tissue regeneration; vascular permeability factor; cell mitogen; anglogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody; cancer; metastatic risk; tumour cell; mouse; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 397
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                                                                                                                         acaccaagtccgaatgcagatcctcatgatccagtacccgagcagtcagctgggggagat
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         TAGATGTGTATACTCGCGCTACCTGCCAGCCCCGGGAGGTGGTGGTGCCCTTGACTGTGG
                                          tagacgtttatgcacgtgccacatgccagcccagggaggtggtggtggctctgagcatgg 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGCCAGACAG
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                                                                                                                                                                                                                                                     h 27.5%;
Similarity 87.3%;
214; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          factor VEGF-B wound healing,
                                                                                                                                                                                                                                                                                   Score 183; DB 28;
Pred. No. 2.78e-94;
                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             proteins - useful to also related nucleic
                                                                                                                                                                                                                                                                                                                    Length 591;
                                                                                                                                                                                                                                                         Indels
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                                                                                                                                                                                                                                                         Gaps
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RESULTANCE OF CONTROL OF STATE OF CONTROL OF STATE OF CONTROL OF STATE OF CONTROL OF STATE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            retal human vascular smooth muscle cells mRNA was isolated
for the preparation of a cDNA library.
The two forms of VEFG (Q10797 and Q10917) which arise through
different message splicing, have different properties. In partic.
hVEGF121 does not bind to heparin leaving more of the protein free to
bind to VEGF receptor and increase the half-life and distribution of
the protein in circulation, whereas hBEGF165 binds heparin strongly.
The product can be used for angiogenesis and re-endothelialisation
of inner vascular surfaces in wound healing, e.g. treatment of full-
thickness wounds such as dermal ulcers, venous ulcers and diabetic
ulcers, burns, in surgery, in balloon angioplasty and for the in
vitro culturing of endothelial cells. Hybrid growth factors of PDGF
and VEGF can exhibit a mitogenic profile between each factor and
can be used for wound healing or as inhibitors of angiogenesis for
e.g. preventing the growth of tumours.

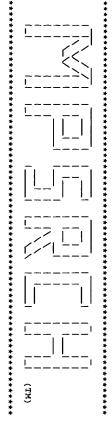
CEGF analogues in which CYS residues are substd. are more stable.
See also Q10791-93, Q10796-97; Q10806-08 and Q11099.
Sequence 366 BP; 110 A; 89 C; 103 G; 64 T;
                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
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011099;
011099;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CALB-) CALIF BIOTECHN INC. Tischer ER, Abrhamam, Fiddes WPI; 91-073534/10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          wound healing; hVEGF; PDGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-MAY-1991 (first entry)
Human vascular endothelial cell growth factor 121.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-JUL-1990; U04227.
27-JUL-1989; US-387545.
14-DEC-1989; US-450883.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bovine vascular endothelial cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Fig 7(1-2); 94pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            producing the factor
in wound healing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA encoding vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P-PSDB; R11386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  293
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327
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                                                                                                                         270
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les 119; Conser
                                                                                                                                                                                                                                                                                    ctgtgtgcccctgatgcgatgcgggggctgctgctacatgacgagggcctggagtgtgtgcc
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                                                                                                                                                          cactgaggagtccaacatcaccatgcagattatgcggatcaaacctcaccaaggccagca
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GCTGGGGGAGATGTCCCTGGAAGAACACAGCCAGTGTGAATGCAGACCTAAAAAA
                                                                                                                         CACTGGGCAGCACCAAGTCCGGATGCAGATCCTCATGATCCGGTA-C-CCGAG-CAGTCA
                                                                                                                                                                                                                                                   CTGCGTGACTGTGCAGCGCTGTGGTGGCTGCCTGCCCTGACGATGGCCTGGAGTGTGTGCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag=
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                                                                                                                                                                                                                                                                                                                                                                      Score 48; DB 2; L
Pred. No. 7.17e-13;
0; Mismatches 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JC, Mitchell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        growth factor; angiogenesis;
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re-endothelialisation
                                                                                                                                                                                                                                                                                                                                                                         53;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 366;
                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                            ω
                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                    269
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Search completed: Tue Dec  $1\ 12:26:11\ 1998$  Job time :  $214\ secs$ .

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Run on: MPsrch_nn n.a. - n.a. database search, using Smith-Waterman algorithm Tue Dec 1 10:39:03 1998; MasPar time 990.87 Seconds 1481.258 Million cell updates/sec

Tabular output not generated.

Description:
Perfect Score:
N.A. Sequence:
Comp: Title: >US-09-033-662-1 (1-666) from US09033662.seq 666

1 ATGAGAAGGTGTAGAATAAG.......GCCGGAAGCTGCGAAGGTGA 666
TACTCTTCCACATCTTATTC.......CGGCCTTCGACGCTTCCACT

Scoring table: TABLE default Gap 6

Nmatch STD: Dbase 0; Query 0

Searched: 567134 seqs, 1101898692 bases x 2

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

1:em_ba 2:em_fun 3:em_htg 4:em_hum1 5:em_hum2 6:em_in
7:em_om 8:em_or 9:em_ov 10:em_pat 11:em_ph 12:em_pl
13:em_ro 14:em_vi
genbank107

Database:

15:gb_ba1 16:gb_ba2 17:gb_htg 18:gb_in 19:gb_om 20:gb_ov 21:gb_pat 22:gb_ph 23:gb_pl1 24:gb_pl2 25:gb_pr1 . 26:gb_pr2 27:gb_pr3 28:gb_ro 29:gb_st 30:gb_sts 31:gb_sy 32:gb_un 33:gb_vi

Statistics: Mean 10.510; Variance 5.631; scale 1.866

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

# SUMMARIES

No.	Score 604	Match 90.7	Query Match Length DB	DB  25	ID HSU43368	Description	Pred. No.
2	602	90.4	755	27	HSU52819	Human vascular endothe	ndothe
ω	483	72.5		28	MMU52820	Mus musculus vascular	cular
4	483	72.5	1236	28	MMU43836	Mus musculus VEGF-rela	3F-rela
υ	360	54.1	567	25	HSU43369	Human VEGF related fac	ted fac
σ	360	54.1	570	21	136629	Sequence 10 from paten	n paten
7	360	54.1	570	25	HSU48801	Human vascular endothe	ndothe
œ	285	42.8		21	I36626	Sequence 4 from patent	patent
9	285	42.8		28	MMU43837	Mus musculus VEGF-rela	F-rela
10	285	42.8	795	28	MMU48800	Mus musculus vascular	cular
11	281	42.2		28	AF032925	Rattus norvegicus vasc	S Vasc
12	263	39.5		21	I36628	Sequence 8 from patent	patent
13	248	37.2	453	28	AF022952	Rattus norvegicus vasc	vasc

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## ALIGNMENTS

RESULT

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/organism="Homo sapiens" /note="GDB DSEG number=D118750" /db_xref="taxon:9606" /clone_lib="Human fetal brain cDNA library from Stratagene" /map="11q13" /chromosome="11" /tissue_type="brain" /dev_stage="fetus" 3626 /gene="VRF"	on/Qualif 79	Silins,G.U. Direct Submission Submitted (15-DEC-1995) Ginters U. Silins, Human Genetics, Queensland Institute of Medical Research, Herston, Queensland, 4029, Australia	Ward,L., Hayward,N. and Weber,G. Cloning and characterization of a novel human gene related to vascular endothelial growth factor Genome Res. 6 (2), 122-129 (1996) 2. (bases 1 to 1079)	Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata; Verrebrata; Eutheria; Primates; Catarrhini; Hominidae; Homo. Verrebrata; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1079) Grimmond,S., Lagercrantz,J., Drinkwater,C., Silins,G., Townson,S., Pollock,P., Gotley,D., Carson,E., Rakar,S., Nordenskjold,M.,	HSU43368 1079 bp mRNA PRI 07-MAR-1996 Human VEGF related factor isoform VRF186 precursor (VRF) mRNA, complete cds. U43368 g1216395 human. Homo sapiens

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Submitted (27-MAR-1996) Ulf Eriksson, Ludwig Institute
Research, Karolinska Institutet, Doktorsringen 12A, Sto
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Eriksson, U., Alitalo, K.,
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J. Biol. Chem. 271 (32), 19310-19317 (1996)
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/db_xref="piD:g148825p
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/map="11q13"
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/db_xref="taxon:9606"
/tissue_type="fibrosarcoma
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i. No. 0.00e+00;
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gene	FEATURES source	REFERENCE AUTHORS TITLE JOURNAL	TITLE JOURNAL	JOURNAL MEDLINE REFERENCE AUTHORS	REFERENCE AUTHORS	ORGANISM	RESULT 3 LOCUS DEFINITION ACCESSION NID KEYWORDS	Db 654 C   Oy 648 C	$\alpha - \alpha$	Db 534 A 1 Qy 528 A	Db 475 C Qy 468 C	Db 415 G   1   0y 408 G	Qy 348 A
/db_xref="taxon::10090" /db_xref="taxon::10090" /db_xref=pe="adult" /tissue_type="heart" /55. 718 /gene="VEGF-B" /son-"VEGF-B" /codon_start=1 /product="vascular endothelial growth factor B 186" /product="vascular endothelial g		3 (bases 1 to 896) 3 (bases 1 to 896) Briksson, U., Alitalo, K., Olofsson, B. and Pajusola, K. Direct Submission Submitted (27-MAR-1996) Ulf Eriksson, Ludwig Institute for Cancer Research, Karolinska Institutet, Doktorsringen 12A, Stockholm S-171 77, Sweden	Genomic organization of the mouse and human genes for vascular endothelial growth factor B (VEGF-B) and characterization of a second splice isoform  J. Biol. Chem. 271 (32), 19310-19317 (1996)	93 (6), 2576-2	to 896) Pajusola,K., Kaipainen,A., von Euler,G., Joukov Orpana,A., Pettersson,R.F., Alitalo,K. and Eriks	nouse mouse.  Mus musculus  Eukaryotae: mitochondrial eukaryotes; Metazoa: Chordata;  Vertebrata; Eutheria; Rodentia; Sciurognathi; Myomorpha; Muridae;  Murinae. Mus	2820 muscul ursor, 20 8260	CCGGAAGCTGCGAAGGTGA 672 	CGCAGCTTCCTCCGTTGCCAAGGGCGGGCTTAGAGCTCAACCCAGACACCTGCAGGTG 653	ACGCTGCACCCAGCACCACCACCGCCCTGACCCCCGGACCTGCCGCCGCCGCTGCCGACG 593	CGGAGCACCCTCCCCAGCTGACATCACCCA-TCCCACTCCAGCCCCAGGCCCCTCTGCCC 533 	GGCTGCCACTCCCCACCACCGTCCCCAGCCCCGTTCTGTTCCGGGGCTGGGACTCTGCCCC 474 	
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Mus.

(bases 1 to 1236)

Townson, S., Lagercrantz, J., Grimmond, S., Silins, G., Nordenskjold, M., Weber, G. and Hayward, M. Characterization of the murine VECF-related factor gene Biochem. Biophys. Res. Commun. 220 (3), 922-928 (1996)

2 (bases 1 to 1236) Hayward, N.K.

96183052

house mouse

Mus musculus Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata; Vertebrata; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;

U43836 g1703480

Mus musculus

1236 bp mRNA ROD 04-DEC-1996 VEGF-related factor mvrf186 precursor mRNA, compacts

MMU43836

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Query Match
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551; Conser
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Submitted (21-DEC-1995) Nicholas K. Hayward, Joint Experimental Oncology Unit, Queensland Institute of Medical Research, Bancro Centre, 300 Herston Rd, Herston, Brisbane, Queensland, 4029,
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larity 89.7%;
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/db_xref="piD:g1314334"
/translation="MSPLIRRLLIVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYAR
ATCQPREVVVPLSMELMGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL
MIQYPSSQLGEMSLEEHSQCECRPKKKESAVKPDRVAIPHHRPQPRSVPGWDSTPGAS
SPADIIHPTPAPGSSARLAPSAVNALTPGPAAAAADAAASSIAKGGA"
256. .813
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429 c 340 g
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/db_xref="taxon:10090"
/clone="m175-m1"
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/dev_stage="neonatal"
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Pred. No. 0.00e+00;
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Local Similarity 100.0%;
nes 360; Conservative
                                                               51 CCCCGCCCAGGCCCTGTCTCCCAGCCTGATGCCCCTGGCCACAGAGGAAAGTGGTGTC 11c
ATGGATAGATGTGTATACTCGCGCTACCTGCCAGCCCCGGGAGGTGGTGGTGCCCTTGAC 170
                                                CCCCGCCCAGGCCCTGTCTCCCCAGCCTGATGCCCCTGGCCACCAGAGGAAAGTGGTGTC
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Pollock, P., Gotley, D., Carson, E., Rakar, S., No
Ward, L., Hayward, N. and Weber, G.
Cloning and characterization of a novel human
vascular endothelial growth factor
Genome Res. 6 (2), 122-129 (1996)
2, (bases 1 to 567)
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U43369
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Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata; Vertebrata; Eutheria; Primates; Catarrhini; Hominidae; H (bases 1 to 567)
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                                                                                                                                                                                          /note="Alternate splice form of VRF189 with a 1014 of deletion following this nucleotide" a 196 c 173 g 94 t
                                                                                                                                                                                                                                                               /product="VEGF related factor isoform VRF167"
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/GOGOn_Start=1
/GOGOn_Start=1
/product="VEGF related factor isoform VRF167 precursor"
/product="PID:g1216398"
/db_xref="pID:g1216398"
/translation="MSPLLRRLILAALLQLAPAQAPVSQPDAPGHORKVVSWIDVYTR
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ATRYPSSQLGEMSLEEHSQCECRPKKUDSAVKPDSPRPLCPRCTQHHQRPDPRTCRCR
CRRRSFLRCQGRGLELNPDTCRCRKLRR"
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/note="GDB DSEG number=D118750"
/db_xref="taxon:9606"
/chromosome="11"
                                                                                                                                                                                                                                                                                                                             'note="putative"
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No. 1.99e-250;
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VRF167 precursor (VRF) mRNA,
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108

ATGGATAGATGTGTATACTCGCGCCTACCTGCCAGCCCCGGGAGGTGGTGCTGCCCTTGAC

167

### NID KEYWORDS SOURCE ORGANISM RESULT 6 LOCUS DEFINITION ACCESSION REFERENCE AUTHORS TITLE JOURNAL FEATURES RESULT LOCUS δÃ В Ş 밁 5 밁 Ş 밁 Ş Ş 밁 δõ В õ В õ Ś В 밁 BASE COUNT ORIGIN B ACCESSION NID DEFINITION **KEYWORDS** Query Match Best Local : Matches source 348 354 348 228 288 294 228 234 108 114 ATGGATAGATGTGTATACTCGCGCTACCTGCCAGCCCCGGGAGGTGGTGGTGCCCTTGAC 173 351 AGAACACAGCCAGTGTGAATGCAGACCTAAAAAAAAGGACAGTGCTGTGAAGCCAGACAG 410 288 291 231 168 171 y Match Local Similarity 100.0%; hes 360; Conservative CCGGATGCAGATCCTCATGATCCGGTACCCGAGCAGTCAGCTGGGGGAGATGTCCCTGGA 353 CCGGATGCAGATCCTCATGATCCGGTACCCGAGCAGTCAGCTGGGGGAGATGTCCCTGGA 350 CTGTGGTGGCTGCCTGACGATGGCCTGGAGTGTGTGCCCACTGGGCAGCACCAAGT CTGTGGTGGCTGCCCCTGACGATGGCCCTGGAGTGTGTGCCCACTGGGCAGCACCAAGT 293 σ ATGGATAGATGTGTATACTCGCGCTACCTGCCAGCCCCGGGAGGTGGTGGCCCTTGAC Human vascular e complete cds. U48801 91234822 136629 Sequence 10 136629 Unknown. Unknown. l (bases 1 to 570) Eriksson, U., Olofsson, B., Alitalo, K. and Vascular endothelial growth factor-B and Patent: US 5607918-A 10 04-MAR-1997; g2086454 HSU48801 Unclassified. 105 a /organism="unknown" 198 c 173 g Location/Qualifiers 570 bp DNA from patent US 5607918. endothelial growth ğ Score 360; DB 21; Length 570; Pred. No. 1.99e-250; 0; Mismatches 0; Indels mRNA 94 PRI 19-AUG-1996 factor B precursor (VEGF-B) Pajusola, K. DNA coding therefor PAT Indels 0; 13-MAR-1997 Gaps 167 407 287 227 233 287 290 227 230 mRNA, 0

Db 354 AG <i>F</i>      Qy 348 AG <i>F</i>	Db 294 CCC 94 288 CCC	Db 234 CTG        Qy 228 CTG	Db 174 TGTG	Db 114 ATG     Qy 108 ATG	рь 54 ссс   11 Qy 48 ссс	Query Match Best Local Matches 3	OUNT	mat_pept	gene		SDS	}		FEATURES source	JOURNAL S	T A	JOURNAL F	TITLE V	REFERENCE 1	SOURCE 1 ORGANISM E	
AACACAGCCAGTGTGAATGCAGACCTAAAAAAAAGGACAGTGCTGTGAAGCCAGACAG 413 	CGGATGCAGATCCTCATGATCCGGTACCCGAGCAGTCAGCTGGGGGAGATGTCCCTGGA 353 	TGTGGTGGCTGCCTGACGATGGCCTGGAGTGTGTGCCCACTGGGCAGCACCAAGT 293 	GTGGAGCTCATGGGCACCGTGGCCAAACAGCTGGTGGCCCAGCTGCGTGACTGTGCAGCG 233 	ATGGATAGATGTGTATACTCGCGCTACCTGCCAGCCCCGGGAGGTGGTGGTGCCCTTGAC 173	CCCGCCAGGCCCTGTCTCCCAGCCTGATGCCCCTGGCCACCAGAGGAAAGTGGTGTC 113 	1 54.1%; Score 360; DB 25; Length 570; Similarity 100.0%; Pred. No. 1.99e-250; 360; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	/gene="VEGF-B" /product="vasculi 105 a 198 c 173	ide	product="vas db_xref="PID translation= TCQPREVVVPLT IRYPSSQLGEMS RRRSFLRCQGRG	/gene="VEGF-B" /note="forms disulfide linked homodimers; forms disulfide linked homodimers; forms disulfide linked heterodimers with VEGF; binds heparin" /codon_start=1	i d	)	n:9606" 1"	fiers	Submitted (08-FEB-1996) Ulf Eriksson, Ludwig Institute for Cances Research, Karolinska Institutet, Doktorsringen 12A, Stockholm, 5-171 77, Sweden	riksson,U., Olofsson,B., Alitalo,K. and Pajusola,K. Pirect Submission	Trace Parks (1996)  (Chases 1 to 570)	Baksela, O., Orpana, A., Pettersson, R.F., Alitatics, and Eriksson, G. Baksela, O., Orpana, A., Pettersson, R.F., Alitatic, K. and Eriksson, G. Bascular endothelial growth factor B, a novel growth factor for and ortholial colle	rimates; Catarrhini; Hominidae; Homo.		: ( ) ( ) :

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                                                                     U43837
g1314335
Submitted (21-DEC-1995) Nicholas K. Hayward, Joint Experimental Oncology Unit, Queensland Institute of Medical Research, Bancro Centre, 300 Herston Rd, Herston, Brisbane, Queensland, 4029,
                                      Direct Submission
                                               Hayward, N.K.
                                                                                                                                                           Eukaryotae; mitochondrial eukaryotes; Metazoa; Chordata; Vertebrata; Eutheria; Rodentia; Sciurognathi; Myomorpha;
                                                                                                                                                                                      Mus musculus
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Eriksson, U., Olofsson, B., Alitalo, K. and Vascular endothelial growth factor-B and Patent: US 5607918-A 4 04-MAR-1997;
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I36626
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Similarity 90.1%;
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Mismatches 35;
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DNA coding therefor
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Mus musculus vascular (VEGF-B) mRNA, complet-
U48800
                                                                                                            Mus musculus
Eukaryotae; m
Vertebrata; E
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g1234824
                     endothelial
                                       Saksela,O., Orpana,A., Pette
Vascular endothelial growth
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              Proc. Natl.
                                                                 Olofsson, B.,
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larity 90.1%;
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/translation="MSPLIRRLIUVALLOLARTOAPVSOFDGPSHOKKVVPMIDVY NI-
/translation="MSPLIRRLIUVALLOLARTOAPVSOFDGPSHOKKVVPMIDVY NI-
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MIQYPSSQLGEMSLEEHSQCECRPKKESAVKPDSPRILCPPCTQRRQRPDPHTCKCK
CRRRRPLHCQGRGLELNPDTCRCRKPRK"
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/product="mvrf167"
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/db_xref="taxon:10090"
/clone="m175-m1"
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/dow_stage="neonatal"
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                                                                                                            mitochondrial eukaryotes; Metazoa;
Eutheria; Rodentia; Sciurognathi; N
                Acad. Sci.
                           cells
                                                    Pajusola,K., Kaipainen,A.,
Orpana,A., Pettersson,R.F.,
                                                                                                                                                                                                            ascular endothelial complete cds.
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Pred. No. 1.61e-191;
0; Mismatches 35;
             U.S.A.
                                        factor B,
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                                      von Euler,G.,
Alitalo,K. and
novel growth f
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Myomorpha;
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**BEST AVAILABLE COPY** 

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RESULT 11
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Matches 32
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TITLE
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Local Similarity 90.1%;
hes 320; Conservative
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                                                                                    precursor,
AF032925
g2641621
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Submitted (08-FEB-1996) Ulf Eriksson,
Research, Karolinska Institutet, Dokto
Norway rat.
Rattus norvegicus
Eukaryotae; Metazoa; Chordata; Vertebrata; Mammalia;
Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                AF032925 349 bp mRNA
Rattus norvegicus vascular endothelial
precursor, mRNA, partial cds.
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iksson,U., Olofsson,B., Alitalo,K. and Pajusola,K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Mus musculus"
/db_xref="taxon:10090"
/tissue_type="heart"
/dev_stage="adult"
95. .157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="pid:g1234825"
/translation="MSPLIRRLLIVALLQLARTQAPVSQFDGPSHQKKVPPWIDVYAR
ATCOPREVVVPLSMELMGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL
MIQVPSSQLGEMSLEEHSQCECRPKKKESAVKPDSPRILCPPCTQRRQRPDPRTCRCR
CRRRPPLHCQGRGLELNPDTCRCRKPRK"
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158. .658
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linked heterodimers with VEGF; binds heparin"
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Pred. No. 1.61e-191;
0; Mismatches 35;
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orsringen 12A, Stockholm
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factor B 186
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                        Eutheria;
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TITLE JOURNAL FEATURES

1 (bases 1 to 405)
Eriksson, U., Olofsson, B., Alitalo, K.
Vascular endothelial growth factor-B
Patent: US 5607918-A 8 04-MAR-1997;
Location/Qualifiers

and

Pajusola, K DNA coding

therefor

BASE COUNT

93

/organism="unknown" 113 c 120 g

79

. 405

source

REFERENCE AUTHORS

SOURCE

ORGANISM

Unknown

Unclassified Unknown

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                                                                                                                               TCCGGGCTGGGACTCTGCCCCCGGAGCACCCTCCCCAGCTGACATCA 493
                                                                                                                                                                                                                                                                    314;
             g2086453
                               Sequence 8
I36628
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 349)
Mandriota, S.J. and Pepper, M.S.
Direct Submission
                                                                I36628
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Similarity 90.5%;
314; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="placenta"
/note="RT-PCR product amplified from total RNA from rat placenta, using degenerate oigonucleotides; sequenced on both strands"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /translation="EVVVPLSMELMGNVVKQLVPSCVTVQRCGGCCPDDGLECVPIGQ
HQVRMQILMIQYPSSQLGEMSLEEHSQCECRPKRRESAVKPDRVAIPHHRPQPRSVLS
WDSAPGASSPADII"
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/db_xref="PID:92641622"
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/strain="Sprague-Dawley"
/db_xref="taxon:10116"
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(VRF) 186 precursor; VEGF-B 186 precursor"
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                                             patent US
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Pred. No. 2.17e-188;
0; Mismatches 33;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCAGGCCCCTGTCTCCCAGCCTGATGCCCCTGGCCACCAGAGGAAAGTGGTGTCATGGA 112
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                                                                                                                                                                                                                                                                                                                 Submitted (31-AUG-1997) Abteilung Allgemeine Pharmakologie,
Universitaets-Krankenhaus Eppendorf, Martinistr.52, Hamburg 20246,
                                                                                                                                                                                                                                                                                                                                                2 (bases 1 to 453)
Weil, J., Eschenhagen, T.,
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                           Eukaryotae; Metazoa; Chordata; Vertebrata; Mammalia; Euther Rodentia; Sciurognathi; Muridae; Murinae; Rattus.

1 (bases 1 to 453)
Weil,J., Eschenhagen,T., Mittmann,C. and Scholz,H.
Isolation and characterization of rat vascular endothelial factor B (VEGF-B)
Unpublished
    h 37.2%;
Similarity 89.2%;
282; Conservative
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Rattus norvegicus
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/product="vascular endothelial growth factor B"
/db_xref="pID:92766602"
/translation="KRKVVSWIDVYARATCOPREVVVPLSMEFMGNVVKQFVPSCVTV
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QRCGGCCPDDGLECVPIQQHQVKMQILMIQYPSSQLGEMSLEEMSQCECRPKRKESAV
KPDSPRTLCPRCTXRRXRPDPRTCRCRCRCRRRFFLHCQGRGLELNPDTC"
a 126 c 136 g 84 t 2 others
                                                                                                                                                                                                              /tissue_type="heart"
/note="isolated by PCR"
                                                                                                                                                                                  /note="VEGF-B"
                                                                                                                                                                                                                                            /organism="Rattus norvegicus"
/db_xref="taxon:10116"
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    Score 248; DB 28;
Pred. No. 1.19e-162;
0; Mismatches 34;
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Pred. No. 2.47e-1
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                                          GCACCAAGTCCGGATGCAGATCCTCATGATCCGGTACCCGAGCAGTCAGCTGGGGGGAGAT
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                               GTCCCTGGAAGAACACAGCCAGTGTGAATGCAGACCTAAAAAAA - - GGACAGTGCTGTG
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136625
                                                                                                                                                                                                                                              36.28;
l Similarity 90.48;
281; Conservative
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Exiksson, U., Olofsson, B., Alitalo, K.
Exiksson, U., Olofsson, B., Alitalo, K.
Vascular endothelial growth factor-B
Patent: US 5607918-A 1 04-MAR-1997;
Location/Qualifiers
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Pred. No. 3.31e-157;
0; Mismatches 28;
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                                                                                                                                                                                                                                                                    Length
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DNA coding
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Best Local Similarity 87.3%;
Matches 214; Conservative
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Sequence 6 from patent US 5607918.
136627
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Eriksson,U., Olofsson,B., Alitalo,K. and Pajusola,K.
Vascular endothelial growth factor B and DNA coding therefor
Patent: US 5607918-A 6 04-MAR-1997;
LOCATION/Qualifiers
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Unclassified.
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Pred. No. 2.06e-112;
0; Mismatches 31; Indels 0; Gaps
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